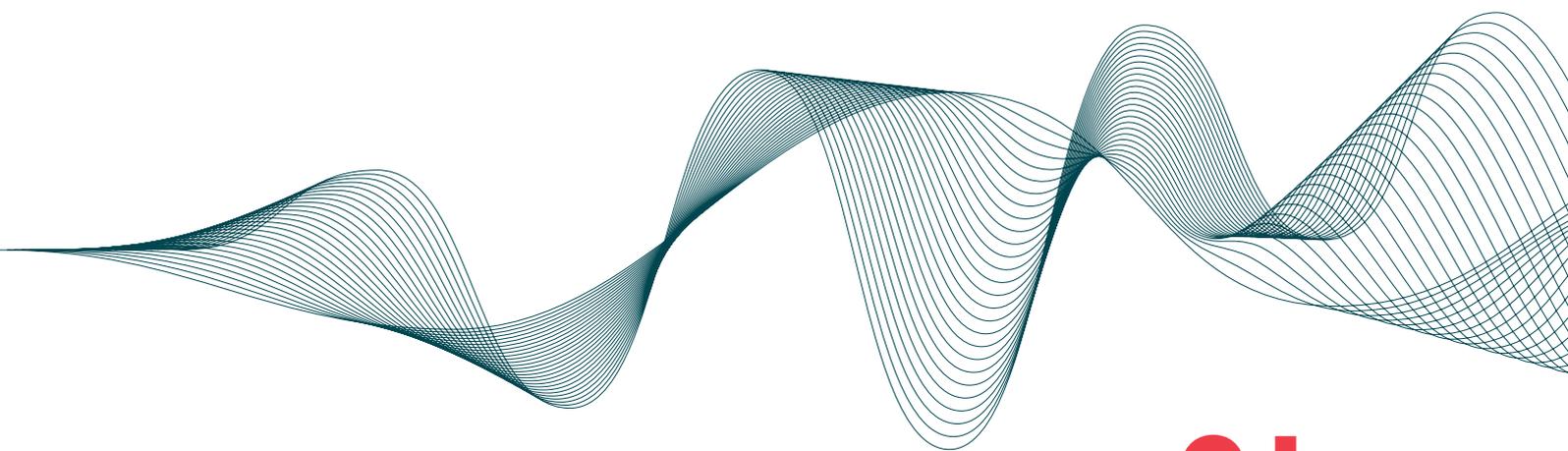


**FREEVENT<sup>®</sup>**



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# **Pulmonary protection and rehabilitation for tracheostomised patients**



**Atos**

Breathing-Speaking-Living  
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# The importance of humidification and filtration in tracheostomised patients

The upper airways provide humidification and filtration upon inspiration<sup>1,2</sup>. Tracheostomy bypasses the upper airways, and when breathing through a tracheostomy, the important, natural humidification and filtration functions of the upper airways are lost. The tracheostomy creates an open portal of entry for unconditioned air and airborne particles to get directly into the lower airways. This can lead to pulmonary complaints such as excessive mucus production and coughing<sup>3</sup>.

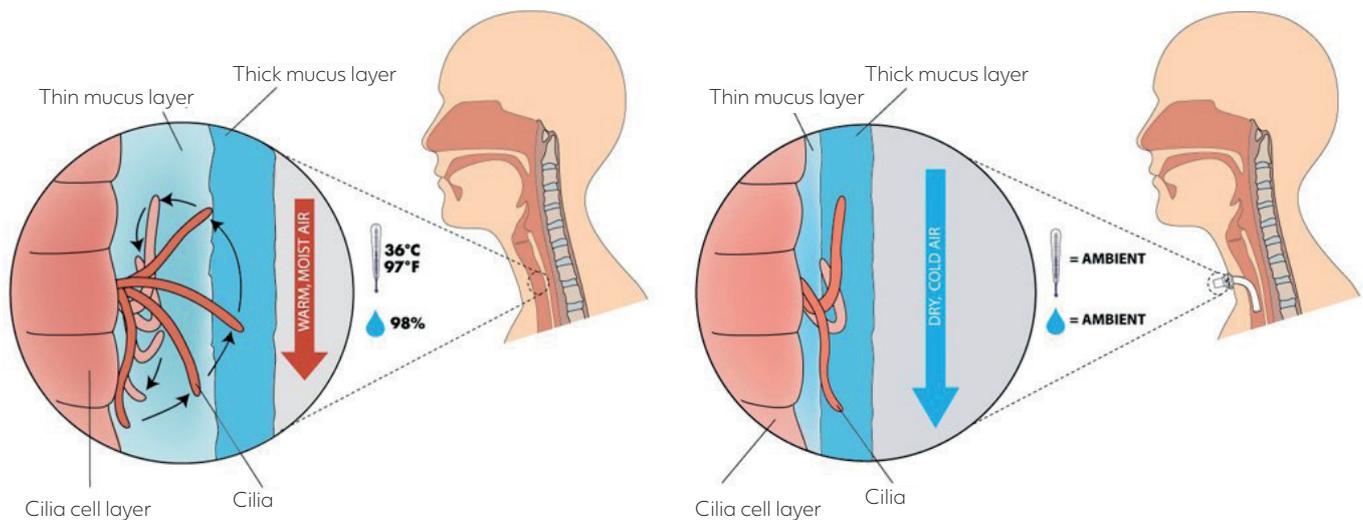
The use of an HME (heat moisture exchanger) in tracheostomised patients reduces heat and moisture loss of the inspired air and gives patients positive pulmonary effects such as less mucus production, less coughing and improvements in respiratory functions<sup>4-7</sup>.

HMEs can improve patient mobility and rehabilitation as well as compliance and sleeping comfort, when compared to external humidification circuits<sup>8</sup>. Using an HME instead of an external humidifier (eg, nebuliser humidifier) can significantly reduce episodes of adverse events (mucus plugs) and the number of days requiring chest physiotherapy during hospitalisations<sup>9</sup>.

The Freevent XtraCare is an HME with an integrated electrostatic filter with a BFE (bacterial filtration efficiency) and VFE (viral filtration efficiency) of >99%<sup>10,11</sup>. It provides the patient with, humidification and filtration of air during inspiration whilst also protecting others during expiration\*.

\*Please note: Since pathogens can leave and enter the human body in other ways (such as the mouth, nose, and eyes), Freevent XtraCare can never guarantee complete protection.

## Mucociliary function



### Healthy Individuals

- Requires successful relationship between all 3 layers:
  - Cilia cell layer
  - Thin mucus layer (low viscosity fluid)
  - Thick mucus layer (mucus)
- Changes in any of the layers affect function

### Neck Breather

- Inspiration of unconditioned air:
  - Lower frequency of ciliary movement
  - Increased mucus production
  - Thickening of mucus
  - Cell damage
- Poor mucus transport and thicker mucus:
  - Effortful cough to clear the respiratory tract from mucus.

# Product overview



## Freevent XtraCare

### Humidification and effective filtration. For extra protection.

A traditional HME humidifies the inhaled air, but does not effectively prevent viruses, bacteria and other airborne particles from entering the airways through the tracheostomy.

Freevent XtraCare (HMEF) includes an electrostatic filter that provides filtration irrespective of the direction of the airflow.

- Combines an HME with an electrostatic filter for extra protection.
- Protects the patient from airborne particles (such as viruses, bacteria, dust and pollen) by effective filtration of inspired air.
- Protects the direct surroundings from airborne particles (such as viruses and bacteria) by effective filtration of the patient's expired air.
- Can be used with Freevent O<sub>2</sub> Adaptor which allows for administration of supplemental oxygen. Use oxygen tubing of 1/8 inch (3.2 mm) diameter.
- Compatible with 15 mm connector.
- An HMEF designed specifically for use in self-ventilating tracheostomy patients with minimal dead space.



## TrachPhone

### An HME offering effective pulmonary and vocal rehabilitation for tracheostomy patients.

Due to its foam filter impregnated with calcium chloride which retains patient's own heat and moisture with every breath.

TrachPhone is an alternative to commonly used humidification circuits that often get displaced, are heavy & uncomfortable and also limit patient's mobility.

- A multi-functional HME offering effective pulmonary rehabilitation.
- Can be used for speaking by finger occlusion of the lid when cuff is deflated or with tracheostomy tube without a cuff.
- Has an integrated suctioning port that allows for tracheal suction without removing the HME.
- Has an oxygen port (4 mm) that allows for integrated administration of supplemental oxygen.
- Compatible with 15 mm connector.

## Filtration performance

Filtration with Freevent XtraCare

	Filtration of bacteria	Filtration of virus	Filtration of small particles
Freevent XtraCare	>99%	>99%	>95%

Please note: Since pathogens can leave and enter the human body in other ways (such as the mouth, nose, and eyes), Freevent XtraCare can never guarantee complete protection.

## Product performance

	HME	Humidification	Breathability	Filtration efficiency	Dead space
	<b>Freevent XtraCare</b>	Moisture loss VT 1000 ml 19.3 mg/l 	Pressure drop 30 l/min 86 Pa 	BFE and VFE >99% <sup>10</sup> 	5.5 ml
	<b>TrachPhone</b>	Moisture loss VT 1000 ml 16.9 mg/l 	Pressure drop 30 l/min 35 Pa 	Not tested	9.5 ml

\*Tests performed at Nelson Labs indicate a filtration efficiency for bacteria, however, initially captured pathogens may migrate through the foam during use and therefore filtration efficiency cannot be guaranteed.

## Product key features

	Freevent XtraCare	TrachPhone
		
HME	✓	✓
Option for speaking		✓
Viral & Bacterial filtration	✓	
Suction port		✓
Oxygen port	✓*	✓

\*In combination with Freevent O<sub>2</sub> Adaptor

**For more information about Atos Medical products and Instructions for Use, visit the website [www.atosmedical.co.uk](http://www.atosmedical.co.uk)**

## Order information

ProTrach is being re-named to Freevent. The products and reference numbers remain the same, whereas the brand and packaging are new. For clarity during this transition we provide both names in the table below.

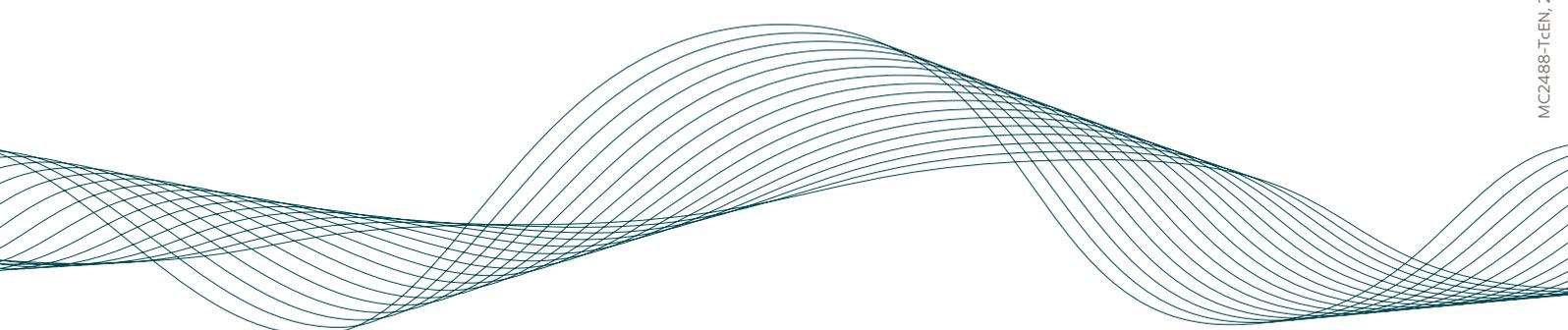
Product name	ProTrach product name	Qty.	Ref.no	Prescription item
Freevent XtraCare, white	ProTrach XtraCare, white	30 pcs	7767	✓
Freevent XtraCare, white	ProTrach XtraCare, white	5 pcs	7789	
Freevent O <sub>2</sub> Adaptor	ProTrach O <sub>2</sub> Adaptor	10 pcs	7769	✓
TrachPhone		50 pcs	7704	
TrachPhone		30 pcs	7707	✓

Please note: All product and product variations may not be available in all regions. Check availability with your local Atos Medical representative.

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