

# Measure Breath Nitric Oxide for Airway Inflammation...

...with NObreath<sup>®</sup> F<sub>E</sub>NO monitor



CE  
0086

*Improving quality of life, one breath at a time*

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## NObreath® F<sub>ENO</sub> monitor

### Fractional Exhaled Nitric Oxide (F<sub>ENO</sub>):

Airway inflammation is a central process in asthma and other lung diseases<sup>4</sup>. Being able to measure this inflammation and monitor the patient's reaction to medication is regarded as a gold standard in the management of respiratory diseases. It is increasingly recognised that the measurement of F<sub>ENO</sub> in particular constitutes a novel way to monitor separate aspects of diseases. These include asthma, COPD and interstitial lung diseases, that are not assessed by other means, such as lung function<sup>2</sup>.

F<sub>ENO</sub> measurements to evaluate airway inflammation in asthma represents a significant advance in respiratory medicine<sup>1</sup>, but until now this has been an expensive test to deliver in everyday practice.

### Benefits of performing F<sub>ENO</sub> tests:

- Non invasive, quick and easy to perform<sup>1</sup>
- Shows patient's response to treatment, enabling the correct prescription of medication
- Shows patient compliance
- Aids in identifying patients who do/do not require ongoing treatment<sup>3</sup>
- Shown to be superior to the majority of conventional tests of lung function, such as peak flow recording and spirometry<sup>1</sup>





## Each NObreath® comes complete with:

**50 Mouthpieces** – specifically designed with the latest bacterial filtration to remove 99.9% of airborne bacteria from the patient's breath. These can be used up to 3 times per patient, dramatically reducing the cost of testing for F<sub>E</sub>NO.

| Order Code | Description                          |
|------------|--------------------------------------|
| NTK50      | 50 Mouthpieces and 1 NObreathFlo™    |
| NTK100     | 100 Mouthpieces and 2 NObreathFlo™   |
| NTK300     | 300 Mouthpieces and 6 NObreathFlo™   |
| NTK1000    | 1000 Mouthpieces and 20 NObreathFlo™ |
| NTK1400    | 1400 Mouthpieces and 28 NObreathFlo™ |



**NObreathFlo™** – eye level flow indicator makes keeping a constant flow during exhalation easy, even for young children. Using the NObreathFlo™ and mouthpieces provided allows the user to comply with ATS/ERS guidelines for F<sub>E</sub>NO testing<sup>2</sup>. The NObreathFlo™ is changed after 50 mouthpieces are used to further reduce the risk of cross-infection



**NObreathFlo™ Trainer** – for patients to practise their technique before taking the test to ensure correct results and avoid using consumables unnecessarily.

**Carry case** – for protecting the NObreath® whilst in storage or when being transported.

**25 alcohol free Cleaning Wipes** – Wipes/gels containing alcohol cannot be used on the NObreath® or any of its components. **Order code – WIPE-BB**

## NObreath® Features

### Battery Indicator

The NObreath® requires 3 AA batteries, making it totally portable and easy to transport.

### Colour Touch Screen

For quick and easy use, with visual prompts for patients whilst taking a test to ensure correct results every time.

### Adult and child profiles

to ensure the best sample times.

### Internal pump and NO scrubber

Enabling warm up and recovery time to be a maximum of 60 seconds by constantly presenting the sensor with NO free ambient air.



Measuring  $FE_{NO}$  with NObreath® is as easy as  
1, 2, 3

1



**Inhale**

2



**Exhale**

3



**Readings  
instantly  
available**

# Technical Specification

|  |  |
|--|--|
| Concentration range:                         | 5-300ppb nitric oxide  |
| Accuracy:                                    | ± 5ppb of measured value ≤50ppb<br>± 10% of measured value >50ppb  |
| Repeatability:                               | ± 5ppb of measured value ≤50ppb<br>± 10% of measured value >50ppb  |
| Sensor sensitivity:                          | 5ppb   |
| Breath test time:                            | Adult 12 seconds/ Child 10 seconds   |
| Response time                                | <10 sec  |
| Warm up time                                 | <2 mins  |
| Ambient air test:                            | 30 seconds   |
| Operating temperature range:                 | 10-30°C (ambient)  |
| Operating relative humidity (environmental): | 10-80% Rh (non-condensing)   |
| Sensor operating life:                       | 1-2 years; 6 month warranty  |
| Detection principle:                         | Electrochemical sensor   |
| Sensitivity drift:                           | <5% per annum  |
| Maximum ambient operating level:             | 350 ppb NO   |
| Power:                                       | 4.5V DC: 3 x AA (LR6 or equivalent) alkaline batteries   |
| Battery Life (1 set of 3 AA batteries):      | Up to 120 tests  |
| Display:                                     | Colour LCD with touch screen   |
| Dimensions:                                  | Approx. 152 x 87 x 47mm  |
| Weight:                                      | Approx. 400g including batteries   |
| Construction:                                | Case – Polycarbonate/ABS blend with elastomeric overmould<br>NObreathFlo – Polycarbonate/ABS blend<br>Mouthpiece – Polypropylene |

## References:

- 1.Andrew D. Smith, Jan O. Cowan, Sue Filsell, Chris MacLachlan, Gabrielle Monti-Sheehan, Pamela Jackson and D. Robin Taylor. Diagnosing Asthma: Comparisons between Exhaled Nitric Oxide Measurements and Conventional Tests. Am J Respir Crit Care Med Vol 169, pp 473-478, 2004.
- 2.ATS/ERS Recommendations for Standardized Procedures for the Online and Offline Measurement of Exhaled Lower Respiratory Nitric Oxide and Nasal Nitric Oxide, 2005; American Journal of Respiratory and Critical Care Medicine; vol. 171: 912-930;2005
- 3.D R Taylor, MW Pinenburg, A D Smith and J C D Jongste. Exhaled nitric oxide measurements: clinical application and interpretation. Thorax 2006;61:817-827.
- 4.Shelhamer JH, Levine SJ, Wu T, Jacoby DB, Kaliner MA, Rennard SI. NIH conference: airway inflammation. Ann Intern Med 1995;123:288-304.



Contact Bedfont or one of our worldwide **NObreath®** distributors for a free demonstration

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## breath analysis is the new blood test

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