Measure Breath Nitric Oxide for Airway Inflammation with the NObreath® FeNO monitor

CE 0086

British Technology

Improving asthma management, one breath at a time.

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NObreath® FeNO monitor

Fractional Exhaled Nitric Oxide (FeNO):

Airway inflammation is a central process in asthma and other lung diseases[1]. 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 FeNO 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[2].

FeNO measurements to evaluate airway inflammation in asthma represents a significant advance in respiratory medicine[3], but until now this has been an expensive test to deliver in everyday practice.

Benefits of performing FeNO tests:

- Non invasive, quick and easy to perform[3]
- 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[4]
- Shown to be superior to the majority of conventional tests of lung function, such as peak flow recording and spirometry[3]

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[5]. These can be used up to 3 times per patient, dramatically reducing the cost of testing for $F_{E_{NO}}$.

Order Code	Description
NTK50	50 Mouthpieces and 1 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 FeNO testing[2].

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 – WIPES**

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 FeNO with NObreath® is as easy as 1, 2, 3

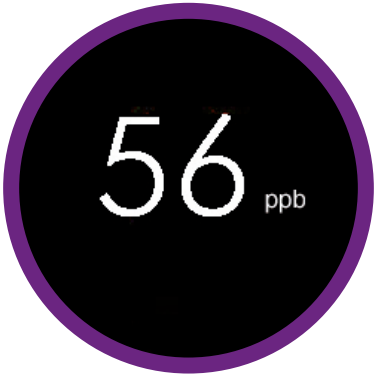
1

Inhale

2

Exhale

3



Readings instantly available

Technical Specification

Concentration range:	5-300ppb nitric oxide
Accuracy:	± 5ppb of measured value ≤50ppb ± 10% of measured value >50ppb
Repeatability:	± 5ppb of measured value ≤50ppb ± 10% of measured value >50ppb
Sensor sensitivity:	5ppb
Breath test time:	Adult 12 seconds Child 10 seconds
Response time	<10 secs
Warm up time	~60 secs
Ambient air test:	30 seconds
Operating temperature range:	10-30ºC (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 NObreathFlo – Polycarbonate/ABS blend Mouthpiece – Polypropylene

[1]Shelhamer JH, Levine SJ, Wu T, Jacoby DB, Kaliner MA, Rennard SI. NIH conference: airway inflammation. Ann Intern Med 1995;123:288-304.
[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]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.
[4]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.
[5]Health Protection Agency (HPA). Porton Down, Report No. 43/06. Pp. 10-11

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

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A full list of our worldwide distributors can be found at www.bedfont.com/distributors/

Scientific contributions to health.

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