# FeNO by NIOX®

A safe and easy way to instantly transform your asthma care





# Airway inflammation is key in asthma<sup>1</sup>

Asthma is usually characterised by airway inflammation, with symptoms such as wheeze, cough, breathlessness and chest tightness.<sup>1</sup>

Unfortunately, current asthma assessments, such as spirometry, do not directly reflect the extent of airway inflammation.<sup>2</sup>



FeNO stands for fractional exhaled nitric oxide and correlates directly with the level of inflammation in patients' lungs.<sup>3</sup> FeNO is the only biomarker of airway inflammation where results are available immediately at the point of care.<sup>2,4</sup>

Recent research has shown that up to **93%**<sup>5,6</sup> of severe asthma patients have Type 2 inflammation, which is particularly associated with exacerbations. When Type 2 inflammation is present, interleukins 4 and 13 upregulate the production of nitric oxide in the airways, increasing FeNO levels.<sup>7</sup>





FeNO testing is safe, non-invasive and easy to perform, even when lung function is severely reduced, in patients from the age of four.<sup>8,9</sup>

Simply inhale and exhale to visualise airway inflammation in a single number in less than two minutes at the point-of-care.<sup>8</sup>

# SIMPLE IMMEDIATE NON-INVASIVE

Asthma is 7X more likely when FeNO >40 ppb<sup>10</sup>

All asthma patients have underlying airway inflammation regardless of symptoms.<sup>11,12</sup> Lung function tests are not enough to make a confident diagnosis.<sup>2,13</sup>

Up to adults and children are incorrectly diagnosed with asthma and almost 70% of asthmatics remain undiagnosed.<sup>14-16</sup>

Incorporating FeNO testing into your clinical routine could help improve diagnostic accuracy, optimise patient care and ensure more effective treatment.<sup>3,17</sup>







Sophie Toor Clinical Director, Respiratory Matters

### "It just gives you that extra bit of the puzzle, which makes you more confident that the diagnosis is correct."18





## Asthma 58% kills 65%

1,000 people worldwide die from asthma every day.<sup>19</sup>

are being treated for mild or moderate asthma.<sup>20</sup>

of these deaths could be prevented.<sup>20</sup>



# Reducing exacerbations is a top priority

High levels of airway inflammation are an important risk factor for exacerbations.<sup>1</sup>

Regular monitoring of inflammation is crucial to keep a close eye on the patient's future risk.<sup>7</sup>

High FeNO values are associated with more exacerbations and increased mortality.<sup>3,21</sup>



High FeNO values are associated with



more exacerbations

Exacerbations are reduced by up to



with FeNO-guided asthma management





### **Optimising treatment** FeNO testing can safely guide the step-wise approach to confidently titrate ICS dosage.<sup>2,24</sup>

### Monitoring adherence

FeNO testing can identify patients who are not taking their ICS medication as prescribed.<sup>25,26</sup>

### "What's my number today, doctor?"<sup>27</sup>

Elevated levels of FeNO enhance your ability to diagnose asthma and are very predictive of response to inhaled corticosteroids.

If someone comes in with symptoms and they've got a high FeNO level, you can be fairly sure they have asthma. It's also really important for patients, giving them a high degree of confidence.



Listen to Dr Richard Russell (UK), as he explains the value of FeNO for patient education.



### Dr Richard Russell

Consultant at Southern Health NHS Foundation Trust and Clinical Director of the West Hampshire Integrated Respiratory Service



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Thousands of healthcare professionals around the world are utilising the economic and clinical benefits of FeNO by NIOX®.

# Good for patients. Good for budgets.

FeNO testing has been proven to considerably reduce costs and improve quality of life when used in asthma patients.<sup>25,28</sup>

# FeNO testing with NIOX® is safe and easy<sup>8</sup>



# The gold standard FeNO device

With millions of tests performed worldwide, NIOX<sup>®</sup> is trusted by thousands of healthcare professionals as the FeNO device of choice and gold standard for clinical use and global research.<sup>30,31</sup>



# ACCURATE RELIABLE STRAIGHTFORWARD

NIOX VERO<sup>®</sup> has been proven to be accurate and reliable.<sup>8,29</sup>

# Inhale. Exhale.

The unique NIOX<sup>®</sup> breathing handle is designed with accuracy in mind.

Inhaling through the handle first is key. As patients inhale, ambient NO and excess humidity are removed from the breath, ensuring the exhalation reflects their true FeNO level.



# One test, one result

NIOX<sup>®</sup> protects your patients from failing a test.

Flow Rate Control<sup>™</sup> guides patients to easily perform a steady exhalation throughout the test, leading to an accurate result each time, every time.



# Never-ending performance

Our sensors just work, from the first test to the last test. NIOX® products are accurate throughout their lifetime and never need to be returned for calibration or servicing.

Whenever you need a new sensor, replace instantly and simply resume testing.





# Everything you need

With two exhalation modes (six-second and 10-second), everyone can perform FeNO testing, from children aged four to patients with severely reduced lung function.<sup>8,9,32</sup>

To maximise accessibility, three engaging animations with sound guide your patients to a successful test.

In approximately one minute, NIOX VERO<sup>®</sup> analyses the breath sample and displays the FeNO result as a single number.





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# See NIOX® on your desk now niox.com/ar/



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### Important safety information

NIOX VERO<sup>®</sup> is a portable system for the non-invasive quantitative simple and safe measurement of Nitric Oxide (NO) in human breath (FeNO) and Nasal Nitric Oxide (nNO) in the aspirated air from the nasal cavity. For FeNO: Nitric Oxide is frequently increased in some inflammatory processes such as asthma and decreases in response to anti-inflammatory treatment. FeNO measurements should be used as part of a regular assessment and monitoring of patients with these conditions. NIOX VERO<sup>®</sup> FeNO is suitable for patients age 4 and above. As measurement requires patient cooperation, some children below the age of 7 may require additional coaching and encouragement. NIOX VERO<sup>®</sup> FeNO can be operated with 2 different exhalation times, 10 seconds and 6 seconds. The 10 second mode is the preferred mode. For children who are not able to perform the 10 second test, the 6 second is an alternative. The 6 second test should be used in caution with patients over the age of 10. It should not be used in adult patients. Incorrect use of the 6 second exhalation test may result in falsely low FeNO values, which can lead to incorrect clinical decisions. For nNO: nNO has been shown to decrease in patients with Primary Ciliary Dyskinesia (PCD) and measurement of nNO can assist in the identification of cases of PCD. Measurement of nNO is suitable for patients age 5 and above. Suspected cases of PCD following screening with nNO should be confirmed according to published recommendations for PCD diagnosis and management.

In case of an adverse event involving NIOX® products, please email product.safety@circassia.com.

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