



Interpreting FeNO Readings¹ Using NObreath® FeNO Device

ATS/ERS Clinical Guidelines Summary For Interpreting FeNO levels^{2,3,4}

Measuring airway inflammation with NObreath® can help monitor the effectiveness of medication and can be used to predict the risk of Asthma attacks^{1*}.

Aid in diagnosis using the NObreath® FeNO device

FeNO (ppb) Levels	LOW < 25 ppb (< 20 ppb in children)	INTERMEDIATE 25-50 ppb (20-35ppb in children)	HIGH > 50 ppb (> 35 ppb in children) or rise in FeNO of > 40% from previously stable levels
Symptomatic (chronic cough and/ or wheeze and/or shortness of breath during past 6 weeks)	Eosinophilic airway inflammation unlikely Alternative diagnosis Unlikely to benefit from ICS	Be cautious Evaluate clinical context Monitor change in FeNO over time	Eosinophilic airway inflammation present Likely to benefit from ICS

Alternative considerations (if Allergic Asthma has been dismissed)⁵

• Non-Allergic Asthma • Chronic cough • Vocal Cord Dysfunction • Gastroesophageal Reflux Disease (GERD)⁵

Monitoring (in patients with diagnosed asthma) using the NObreath® FeNO device

FeNO (ppb) levels	LOW < 25 ppb (< 20 ppb in children)	INTERMEDIATE 25-50 ppb (20-35ppb in children)	HIGH > 50 ppb (> 35 ppb in children) or rise in FeNO of >40% from previ- ously stable levels
Symptomatic (chronic cough and/ or wheeze and/ or shortness of breath during past 6 weeks)	Possible alternative diagnosis. Unlikely to benefit from increase in ICS	Persistent allergen exposure Inadequate ICS dose Poor adherence Steroid resistance	Persistent allergen exposure Poor adherence or inhaler technique Inadequate ICS dose Risk of exacerbation
Symptoms Absent	Adequate ICS dose Good adherence ICS taper	Adequate ICS dosing Good adherence Monitor change in FeNO	Steroid resistance ICS withdrawal or dose reduction may result in relapse

*FeNO is not a definitive indication of asthma and should be used in conjunction with (but not limited to) spirometry, patient history, symptoms.

Treatment Planning

FeNO testing with the NObreath® couldn't be easier:

Test, Treat, Repeat™



Regular FeNO measurements indicate levels of airway inflammation, which can help Healthcare Professionals personalise treatment plans for patients, by helping titrate ICS dosing and evaluate patient adherence to treatment.

NICE/BTS/SIGN Guidelines for interpreting FeNO levels⁶

The National Institute for Health and Care Excellence (NICE), the British Thoracic Society (BTS), and the Scottish Intercollegiate Guidelines Network (SIGN) updated and published a joint guideline on asthma diagnosis, monitoring, and chronic asthma management.

Diagnosis

Adults

> 50 ppb or higher

Children

> 35 ppb or higher

- FeNO testing recommended first-line testing in asthma diagnosis for adults and children.
- If the first test is diagnostic further diagnostic testing is not required.

Management

- FeNO testing has been acknowledged as a tool in asthma management.
- Aids to inform healthcare professionals when changing or adjusting asthma therapy.
- Recommending FeNO use for asthma monitoring in adults.

NOTE: This interpretation chart is based on both UK joint guidance from NICE, BTS, and SIGN and ATS/ERS guidance. Alternative guidelines may exist; please refer to your local or national guidance when interpreting FeNO results.

www.nobreathfeno.com

References

1. J. Saito et al, European Respiratory Journal; Domiciliary diurnal variation of fractional exhaled nitric oxide for asthma control. August 15 2013, v.43, iss.4, pp 474-484.
2. Dweik RA, Boggs PB, Erzurum SC, Irvin CG, Leigh MW, Lundberg JO, Olin AC, Plummer AL, Taylor DR, American Thoracic Society Committee on Interpretation of Exhaled Nitric Oxide Levels (FENO) for Clinical Applications. An official ATS clinical practice guideline: interpretation of exhaled nitric oxide levels (FENO) for clinical applications. American journal of respiratory and critical care medicine. 2011 Sep 1;184(5):602-15. PMID: PMC4408724 PMID: 21885636.
3. Hatri SB, Iaccarino JM, Barochia A, Soghier I, Akuthota P, Brady A, Covar RA, Debley JS, Diamant Z, Fitzpatrick AM, Kaminsky DA. Use of fractional exhaled nitric oxide to guide the treatment of asthma: an official American Thoracic Society clinical practice guideline. American journal of respiratory and critical care medicine. 2021 Nov 15;204(10):e97-109. PMID: PMC8759314 PMID: 34779751.
4. Louis R, Sathia I, Ojanguen I, Schleich F, Bonini M, Tonia T, Rigau D, Ten Brinke A, Buhl R, Loukides S, Kocks JW. European Respiratory Society guidelines for the diagnosis of asthma in adults. European Respiratory Journal. 2022 Sep 1;60(3). DOI: 10.1183/13993003.01585-202.
5. Murugesan N, Saxena D, Dileep A, Adrish M, Hanania NA. Update on the role of FeNO in asthma management. Diagnostics. 2023 Apr 15;13(8):1428.
6. Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) [Internet]. National Institute for Health and Care Excellence. 2024. Available from: <https://www.nice.org.uk/guidance/ng245>.

Visit www.bedfont.com/resources to view this document in other languages.

World leaders in breath analysis.



Bedfont® Scientific Ltd.
Station Road, Harrietsham, Maidstone, Kent, ME17 1JA England
Tel: +44 (0)1622 851122 Fax: +44 (0)1622 854860
Email: ask@bedfont.com Web: www.bedfont.com

© Bedfont® Scientific Limited 2026

Issue 12 - July 2026, Part No: LAB725

Bedfont® Scientific Limited reserves the right to change or update this literature without prior notice.

Registered in: England and Wales. Registered No: 1289798

Rx only

