

The FeNO Test

FeNO (Fractional Exhaled Nitric Oxide) is a “biomarker” which is a measure that can show us the difference between health and disease. A biomarker can also help to predict future disease risk or how well treatment may work for a person.

Nitric oxide (NO) is made in airway cells when you have an infection or other condition that causes inflammation (swelling).

As NO has a role in different lung functions, healthcare providers use FeNO as a biomarker for risk. For example, in asthma, high FeNO is related to irritated airways, accumulation of white blood cells in the tissue lining the airways, and can give you and your provider an idea of your disease severity and exacerbation (flare-up) risk.

WHAT IS A FENO TEST?

A FeNO test works by measuring NO, a colorless gas, in your breath. It is used to help diagnose the type of inflammation in people with lung diseases – especially those with asthma – along with other tests (like blood eosinophil count or immunoglobulin E-IgE).

HOW IS THE FENO TEST DONE?

You will breathe into a mouthpiece. You will be talked through the process, and the results then will show on a handheld monitor. Overall, the test is easy, quick, and painless.

WHAT DO THE RESULTS MEAN?

Right after the test is done, the results will be available. Your healthcare provider will explain the results to you and then go over treatment options based on your medical history and test(s) results.

In general:

- A high FeNO test result tells us there are inflamed (swollen) airways. It is usually caused by a type of inflammation called type 2 inflammation.
- A low FeNO test result tells us there is a low level of airway inflammation.

Image kindly provided by NIOX® for illustrative purposes.

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WHAT ARE SOME POSSIBLE TREATMENTS?

-Inhaled or injected (biologic) medications that target type 2 inflammation.
-Oral corticosteroids (anti-inflammatory medications) used to treat many conditions.
Treatment depends on each person's needs and is best discussed with your healthcare provider.

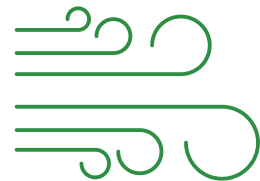
TIPS FOR PREPARING FOR YOUR FENO TEST:

Carefully read the directions given to you. The following can affect testing results, so:

- At least 1 hour before the test:
 - Do not drink hot drinks, alcohol, or caffeine.
 - Do not smoke.
 - Do not exercise.
- At least 3 hours before the test:
 - Avoid eating foods high in nitrates like green leafy vegetables, radishes, carrots, beets, cabbage, broccoli, cauliflower, turnips, or pumpkins.

WHAT DOES RE-CHECKING FENO LEVELS DO?

Track the levels of inflammation in your airways over time. This will let the provider know if your current treatment plan is working for you. Show which airway inflammation type you have, as this too can change over time.



WHEN SHOULD I TALK ABOUT GETTING A FENO TEST WITH MY PROVIDER?

If you've been having trouble breathing for a while but haven't been diagnosed with a lung condition, or if your lung treatments aren't working, it's a good idea to talk to your provider about getting a FeNO test.



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SOURCES:

Marcos MC, Cisneros Serrano C. What is the added value of FeNO as T2 biomarker?. *Front Allergy*. 2022;3:957106. Published 2022 Aug 11. doi:10.3389/falgy.2022.957106

Ambrosino P, Fuschillo S, Accardo M, et al. Fractional Exhaled Nitric Oxide (FeNO) in Patients with Stable Chronic Obstructive Pulmonary Disease: Short-Term Variability and Potential Clinical Implications. *J Pers Med*. 2022;12(11):1906. Published 2022 Nov 16. doi:10.3390/jpm12111906

<https://aafa.org/asthma/asthma-diagnosis/lung-function-tests-diagnose-asthma/feno-tests-to-monitor-feno-levels/#~:text=What%20is%20FeNO%3F,you%20have%20in%20your%20airways.>

[https://www.asthmaandlung.org.uk/symptoms-tests-treatments/tests/feno-test/#~:text=FeNO%20\(fractional%20exhaled%20nitric%20oxide,and%20most%20children%20over%20five.](https://www.asthmaandlung.org.uk/symptoms-tests-treatments/tests/feno-test/#~:text=FeNO%20(fractional%20exhaled%20nitric%20oxide,and%20most%20children%20over%20five.)

