UBREATH®

Breath gas analysis system

Model BA200

UBREATH®Breath Gas Test System (Model NO.BA200) is a non-invasive and convenient point-of-care device for assessing airway inflammation in patients with respiratory problems such as asthma, it measures the fractional exhaled nitric oxide (FeNO) in the breath of patients, helping your health care provider confirm or track the inflammation condition you have in the airway and provide better asthma care with more accurate diagnosis and appropriate management.

✚ Reliable device meet ATS/ERS requirement
✚ Easy to use with safe protection prevention
✚ Quick results with real time reaction curve display
✚ Smart system with comprehensive quality control

UBREATH®

Background Introduction

Fractional concentration of exhaled nitric oxide (FENO) is a biomarker used to identify allergic airway inflammation. The noninvasive measurement of exhaled mediators makes them ideally suited for the serial monitoring of patients.

In asthma, where exhaled NO promises to be very useful to use this marker to diagnose asthma to monitor the response to anti-inflammatory medications, to verify adherence to therapy, and to predict upcoming asthma exacerbations. It is also proposed that adjusting antiinflammatory medications guided by the monitoring of non-invasive markers, such as sputum eosinophils and exhaled NO, could improve overall asthma control.

FnNO	Sinonasal
FnNO	
$FeNO_{50}$	Major airway
$FeNO_{200}$	Small airways
CaNO	Pulmonary alveoli

Nasal NO concentration has been proposed as a surrogate marker of nasal inflammation in allergic rhinitis, which is considered a research tool for most indications (e.g., allergic rhinitis, cystic fibrosis, sinusitis), also be recommended as a screening tool for in primary ciliary dyskinesia.

*Currently, there is no recognized threshold range for $FeNO_{200}$, CaNO, FnNO, and FeCO. For the above reference standard values, refer to the clinical guidelines of ATS/ERS 2011 and 2014 and the expert consensus on nitric oxide detection and clinical application in children's exhaled air (Version 2021)
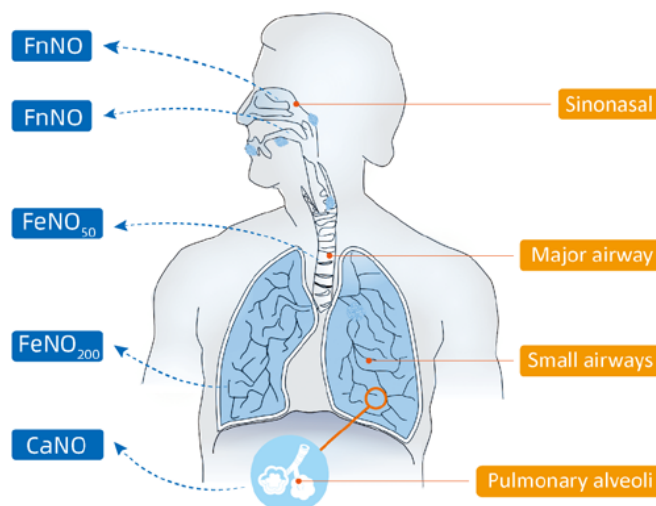
Product Features

Breath gas test system
Model: BA200

Nitric oxide sensor
Model: BS101/BS102
BS103/BS104

Breathing handle with cap
Model: BP100

Nasal filters
Model: TF731

Patient filters
Model: TF711

+ Online Analysis of Exhaled Nitric Oxide

Index: $FeNO_{50}$, $FeNO_{200}$, CaNO
In a single-breath NO profile
For Adult and >6 ages children

+ Offline Analysis of Exhaled Nitric Oxide

Index: sNO
Exhaled gas collected in a reservoir and subsequently analyzed for NO concentrations.
For the groups unable to pass by a single-breath profiles

+ Online Analysis of Nasel Nitric Oxide

Index: $FeNO_{10}$
Aspiration at constant flow rate (10mL/s) from one naris
Adult and >3 ages children

+ Breath-by-Breath NO Analysis

Index: sNO
Exhaled gas collected via a facemask and subsequently analyzed for NO concentrations.
For the groups only can support tidal breathing with uncontrolled flow rate
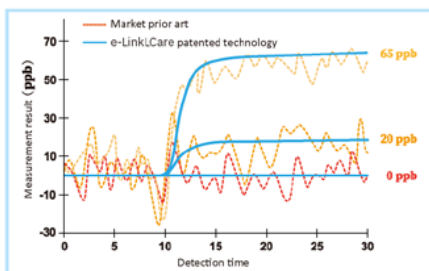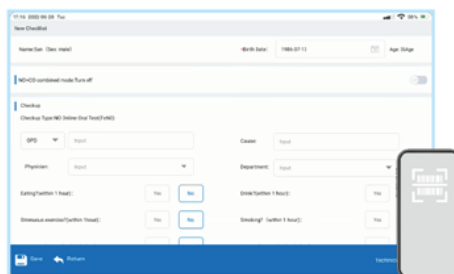
Product Advantages

✿ Multi-parameter measurement
+ Available for FeNO, CaNO, FnNO, sNO, FeCO
+ Support the joint-measurement model for airway examination

✿ Convenient to use
+ Support barcode scanning function for patient information input
+ Quick performing a test and get result within 1 minute

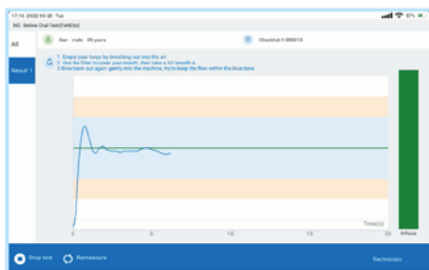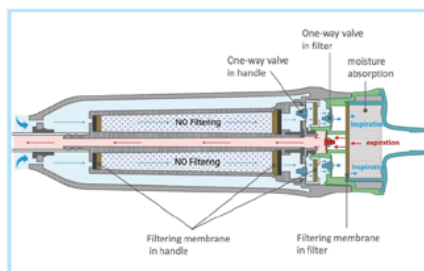## ✿ Reliable result
+ Exclusive biosensor technology supports highly sensitive and excellent precision
+ Excellent repeatability allows for three measurements in one test

✿ Safe protection prevention from cross contamination risk
+ Unique patented design with separately tunnel for exhaled and inhales to preventing cross-contamination risk

✿ Real-time dynamic curve
+ Realtime monitoring of expiratory flowrate and mouth pressure for quality control

✿ Comprehensive quality control
+ Internal check of electronics every time at start-up and last abnormal value
+ Auto-calibration technology support a compensation of flow, temperature, humidity, and atmospheric pressure etc

Specifications

Key Features and Technical specifications

Feature	Descriptions
Product name	UBREATH® Breath Gas Test System
Model	BA200
Detection	Electrochemical sensor
Testing modes	Online Exhaled NO ($FeNO_{50}$、 $FeNO_{200}$、 CaNO) Nasal NO analysis (FnNO) Offline NO analysis (sNO)
Measurement range:FeNO	0～4000 ppb
Exhalation time	10 seconds (preferred mode) 6 seconds (only for children< 6 years old who are not able to perform the 10 sec test)
Measurement time	< 30s
Accuracy	± 2.5 ppb of measured values ≤50 ppb, < 5% of measured values > 50 ppb
Repeatability	<1.5 ppb of measured values ≤50 ppb, < 3 % of measured value > 50 ppb
Display screen	10.1-inch IPS touch screen, 1200*1920 resolution
Sensor sensitivity	0.1 ppb
Detection limits	1 ppb
Dimensions (height x width x depth)	259 mm × 115 mm× 200 mm
Memory	16GB EMMC+2GB LPDDR3
Power	AC100-240 V~50/60 Hz
Operating environmental condition	5℃～35℃, ≤ 80 %RH(non-condensing)