

shed a new light on airway pH

airway pH: WHY MEASURE

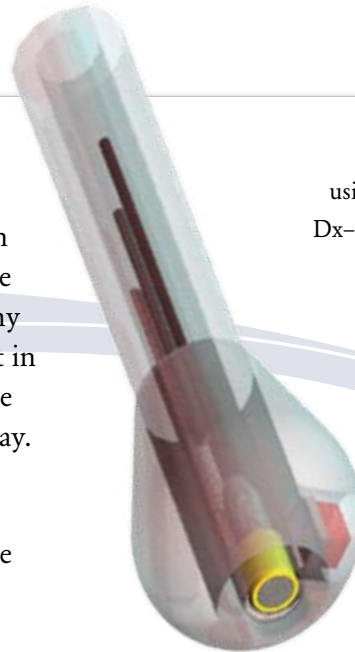
Until the introduction of Restech's Dx-pH Measurement System, accurate, real-time measurement of airway pH was not possible. Physicians relied largely on subjective and empiric drug trials to confirm a diagnosis.

Acidic or alkaline extremes cause damaging effects in the airway and even worse damage to the lungs. The longer and more severe the exposure, the greater the corresponding damage. Complicating the effects of extreme pH is the similarity in symptoms and visual appearance of the epithelium. Likewise, allergies, vocal abuse, sleep apnea and laryngopharyngeal reflux can manifest as symptoms that are difficult, if not impossible, to differentiate.

restech's SOLUTION

The Dx-pH Measurement System measures and records airway pH every 1/2 second for up to 48 hours, while the patient inputs clinically relevant information such as meals, symptoms, and supine position with the press of a button. The patented, miniaturized antimony sensor and reference electrode are housed 0.002" apart in the tip of the Dx-pH Probe, enabling it to measure the aerosolized particles of refluxate in your patient's airway.

All pH data is transmitted wirelessly and stored on an SD card for review with the Dx-pH DataView software program.



Dryout Detection
using hydration monitoring circuitry, the Dx-System records pH 15 if dryout occurs

Teardrop Shape
minimizes fouling

Red Light-Emitting Diode (LED)
assists in visual placement

Greater Sensitivity
with its Antimony-E design and sensor face size < 1mm

Downward Aim
reduces masking

how IT WORKS

1 SET UP STUDY



Follow the Dx-Recorder prompts to complete the simple process (usually set-up by office staff).

2 PLACE THE PROBE



Insert the catheter through the naris and adjust the position until the flashing LED in the probe tip appears behind the soft palate.

3 DOWNLOAD DATA



The intuitive DataView software calculates reflux events, categorizes correlations and provides a graphic representation of airway pH levels.

the RESULTS

An 18-48 hour picture of your patient's airway pH levels provides useful evidence-based data to assist with diagnosis and appropriate treatment. Choosing an effective course of treatment just got easier.

Your patient will present with a test that is:

- *Alkaline*
- *Mixed Alkaline and Acidic*
- *Acidic*
- *Normal pH (Negative)*

The pH data and patient input information captured during the study (meal periods, symptom occurrence and supine period) are plotted on the data graph so you can easily develop an appropriate treatment pathway.

The Dx-System can also be used to monitor airway pH levels during sleep studies with a direct plug-in to a PSG machine. Monitoring airway pH during a sleep study is particularly relevant for correlating silent reflux with respiratory symptoms and arousals from sleep.

Why Choose the Dx-pH Measurement System?

Accurate airway pH measurement

Faster diagnosis of LPR

Greater precision in treatment pathway design

Avoidance of empiric trial and unnecessary exposure to medication

Up to 48 hours of detailed and charted information

Time capture & symptom correlation

Ability to study nocturnal supine period

in YOUR PRACTICE



Get the information you need. Give your patients the care they deserve.

Integrate the Dx-pH Measurement System into your practice today. Restech provides on-site installation and training, followed by 24/7 technical support to help you and your staff gain comfort and confidence with this technology—all at no additional cost.

Call 800.352.1512 or *visit* www.restech-corp.com.

product SPECIFICATIONS

Dx-pH Probe™

MODEL	CHANNELS	SHAFT DIAMETER	TIP DESCRIPTION
Dx-201	1	4.6 Fr/1.5mm	teardrop, red LED

Hypoallergenic—Contains no latex or PVC.

Dx-Transmitter™

MODEL	DIMENSIONS	WEIGHT	BATTERY	COMPLIANCE
Dx-300	<i>l</i> 2.75" <i>w</i> 0.88" <i>h</i> 0.60"	25 g	Coin cell CR 1632	IEC 60601-1 FCC 15.247

Dx-Recorder™

MODEL	DIMENSIONS	WEIGHT	BATTERY	DATA STORAGE
Dx-500	<i>l</i> 4.50" <i>w</i> 2.75" <i>h</i> 1.25"	150 g	2 AA Alkaline	SD™ Memory Card

Dx-Calibration Vials™

MODEL	CONTENTS
Dx-020	pH 7.0 Calibration Solution pH 4.0 Calibration Solution Rinse Solution } NIST Standards

Dx-Sleep Adapter™ (can custom fit to most specifications)

MODEL	CABLE	OUTPUT	OUTPUT VOLTAGE
Dx-400	60"	(+1V) 1/8" Mono male audio jack	(+1V) 0 to 1 VDC

Dx-pH DataView Lite™

FEATURES
PC based, graphical interface software that sets up study, downloads completed study, edits and relates data, prints graphs and reports, stores patient files



The Dx-pH Measurement System (shown above) monitors pH in the airway, assisting the physician in determining the relationship between Laryngopharyngeal Reflux and various conditions including:

- *Recurrent Laryngitis*
- *Chronic Cough*
- *Sinusitis*
- *Asthma*
- *Sleep Disordered Breathing*
- *Chronic Obstructive Pulmonary Disease*



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about RESTECH

Restech is a leader in engineering world-class medical technologies that provide comfortable, reliable solutions to assist physicians in the diagnosis of respiratory and reflux related health problems. The staff and engineers at Restech are committed to excellent customer service and support as well as a continued pursuit of innovative instrumentation for your practice.

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