RESMON PRO

V3

TESTING AND RESULTS EVALUATION

WHAT IS THE RESMON PRO FULL?

It is a device based on the Forced Oscillation Technique (FOT), offering a complete functional assessment of the respiratory system, through simple measurements performed at tidal breathing.

MGC DIAGNOSTICS®

MGC Diagnostics Corporation
Manufactured by ResTech, distributed exclusively by Medical Graphics Corporation.

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Designed, developed, manufactured by:

RESTECH RESPIRATORY TECHNOLOGY

CE 0051

FDA CLEARED

RESTECH is an ISO 13485, ISO 9001 and MDSAP certified company.

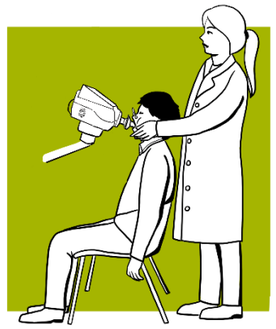
Part# 035008-001 RevA

PROPER POSTURE DURING THE TEST

Maintain a sitting position, with a **straight back** while leaning against the seat back and with a relaxed, **slightly overextended neck**.

1. Wear the noseclip.
2. Breathe in a relaxed way through the mouthpiece, keeping the tongue below, avoiding leaks.
3. Support from behind the patient's cheeks and the soft tissue under chin during the test with the patient arms falling on the sides to obtain a relaxed shoulders posture, see figure below (suggested technique). Alternatively, the patient may support his/her cheeks ensuring that the elbows are slightly detached from the chest.

SUGGESTED TESTING TECHNIQUE



ALTERNATIVE TECHNIQUE

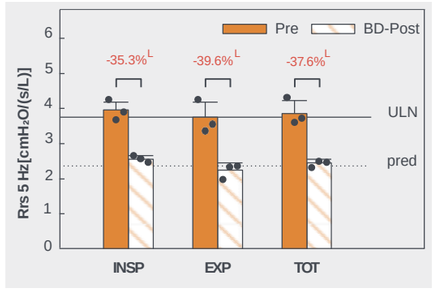
IMPORTANT NOTE

Validity of results depends from good data quality and correct testing procedure, patient head/neck, relaxed shoulders position, and supported cheeks. The Resmon Pro's sophisticated software breath-reject algorithms will minimize artifacts such as glottis closure, coughs, and irregular breathing.

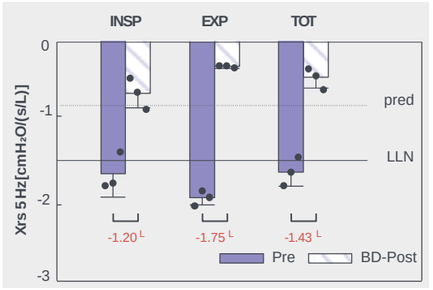
TEST EVALUATION

1. PRESENCE OF RESPIRATORY IMPAIRMENT AND REVERSIBILITY

5 Hz | 8 Hz | 5, 11, 19 Hz



Resistance (Rrs) graphs for Inspiratory, Expiratory and Total inspiratory cycle parameters at the lowest measured frequencies (for adult and pediatrics). Predicted dotted line and ULN (Upper Limit of Normality).



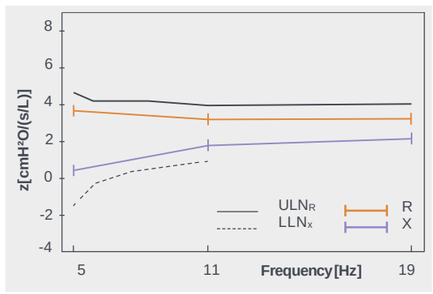
Reactance (Xrs) graphs for Inspiratory, Expiratory and Total inspiratory cycle parameters at the lowest measured frequencies (for adult and pediatrics). Predicted dotted line and LLN (Lower Limit of Normality)

RRS > ULN and/or XRS < LLN are indicative of an anomaly in respiratory mechanics.

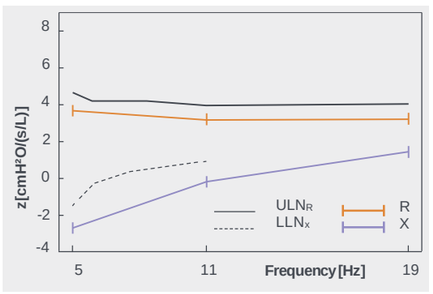
Differences between tests that are above those expected in a reference healthy population are highlighted in red.

2. LOCALIZATION

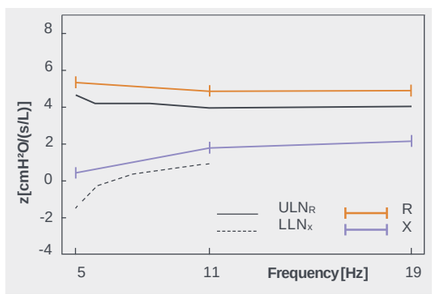
5, 11, 19 Hz



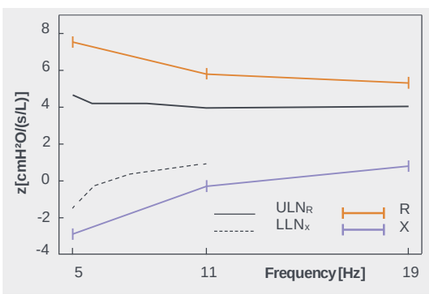
NORMAL
Both Resistance (**Rrs**) and Reactance (**Xrs**) do not present anomalies (**Rrs < ULN** and **Xrs > LLN**).



PERIPHERAL DISEASE
Resistance (**Rrs**) does not present anomalies (**Rrs < ULN**), Reactance (**Xrs**) is below its lower limit of normality (**Xrs < LLN**), for possible small airway obstruction, excluded alveoli, disomogeneity of ventilation, or possible restriction.



CENTRAL OBSTRUCTION
Resistance (**Rrs**) is above its upper limit of normality (**Rrs > ULN**) and Reactance (**Xrs**) does not present anomalies (**Xrs < LLN**) for diseases affecting central airways.



SEVERE OBSTRUCTIVE DISEASE
Both Resistance (**Rrs**) is above its upper limit of normality (**Rrs > ULN**) and Reactance (**Xrs**) is below its lower limit of normality (**Xrs < LLN**). Resistance (**Rrs**) tends to decrease at higher frequencies (i.e. severe asthma, severe COPD).

3. TIDAL EXPIRATORY FLOW LIMITATION, ΔXRS INDEX

5, 11, 19 Hz | 5 Hz

ΔXrs is the patented index of expiratory flow limitation during tidal breathing.*

ΔXrs> 2.8 → LIMITATION

* Dellacà et al. Eur Resp J 2004, Eur Respir J 2007.