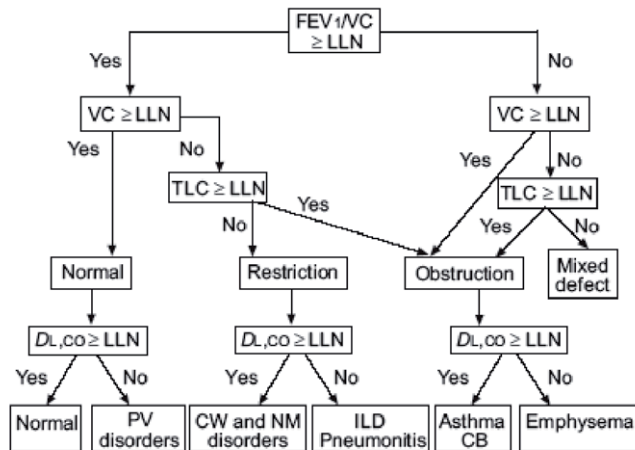


Think outside of the box

Think ATS/ERS

ATS/ERS task force: standardization of lung function testing

(Eur Respir J. 2005;26:948-968) [a simplified algorithm that may be used to access lung function in clinical practice]



Think accuracy and standards

- EasyOne is the first and only equipment developed based on the newly introduced DLCO simulator, the accepted world standard
- ndd technology is world wide proven and is the accepted new way of doing lung function testing
- more than 20'000 EasyOne in all corners of the world, sited in many papers in most reputable journals by international scientists
- lab quality measurement in the field
- easy maintainability for highest performance



Think ndd - technology

Flow measurement for all spirometry parameters

The ndd patented state of the art ultrasound transit time measurement that determines directly flow:

- independent of temperature, humidity, ambient pressure
- proven long term stability without maintenance such as cleaning, calibration etc.



spirette™

The modern consumable for hygienically safe, precise, maintenance free, calibration free measurement as introduced by ndd. Uncompromising spirometry with utmost ease of use:

- conical shape for good seal of lips of all sizes
- oval for best fit
- resting place for teeth for obstruction free blow
- no resistance for true flow measurement
- environment compatible, lasting and user friendly material (PE)



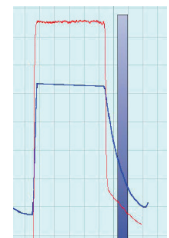
barriette™

The virtual filter approved for optimum hygienic separation of spirette / patient from the analyzer. The new consumable designed by ndd.



CO determination with a measured automatic delay correction

In a unique “tube within tube” design the sample is brought to the main analyzer while temperature and humidity are adjusted for a fast clean and highly accurate CO analysis with a new state of the art CO sensor.

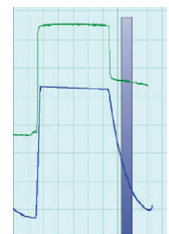


EasyCO
fast and reliable

Near patient Helium measurement

The ndd patented state of the art Helium determination based on ultrasound transit time measurement.

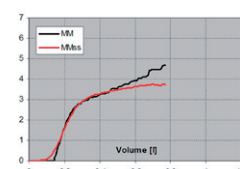
Helium is determined precisely and at exactly the same time as the flow, the same patented sensor measures flow and Helium.



MolMass
the next step

Determination of MolMass over volume and conclusive diagnosis of lung function from tidal breathing

The ndd measurement of CO2 over volume is made available in a R&D measurement mode allowing direct tidal breath analysis.



UPG the new dimension

Think patients

- the fast and easy way of doing lung function near the patient
- no patient traffic on the way to the lab
- no hassle to patients and care takers
- bring the patient's results to the lab, not the patients
- the gas is the limit to portability, small bottles for bed side, big bottles on locations for POCT (point of care testing)

EasyOne Pro test program

EasyOnePro Test	Test Description	Results	Clinical use	Reference
UPG (research only)	Tidal breathing procedure using proprietary exhaled molar mass analysis.	- Slope phase II - Volume phase II - Slope phase III - Volume phase III - Dead space - flow-time and volume-time indices	Effort independent diagnosis of airway obstruction and misdistribution of gas.	Jensen ERS 2004 Jensen ATS 2005 Buess ATS 2005 Goldman ATS 2005
DLCO (KCO)	Simple 10 second breath hold of medical test gas containing Helium and Carbon Monoxide	DLCO, FRC, VA, DLCO/VA, IVC, Kroghs K, TLC, RV, RV/TLC, adjusted values for haemoglobin, oxygen, carboxy-haemoglobin and methaemoglobin.	Measures gas transfer function and volume of the lung.	2005 ATS/ERS Standardization of Single Breath DLCO (ERJ 2005; 26: 720-735) 2005 ATS Pulmonary Laboratory Guidelines, 2nd Edition, Chapter 10 Correction of single-breath helium lung volumes in patients with airflow obstruction (CHEST 1998; 114:907-918)
Spirometry	Measures airflow and volumes that can be inhaled and/or exhaled.	FEV1, FVC, FEV1/FVC, FEV6, PEF, SVC, MVV (refer to parameter table for a complete list)	Clinical diagnosis of early abnormalities and classification of severity of lung disease.	2005 ATS/ERS Standardization of Spirometry (ERJ 2005; 26: 720-735) 2005 ATS Pulmonary Laboratory Guidelines, 2nd Edition, Chapter 6
Challenge testing	Measures the reactivity of air-ways to a stimuli (methacholine, histamine, mannitol, cold air, exercise)	PC(PD)10,15,20, Dosage, pre/post diluent values, graphic and tabular trend display	Evaluation of airway hyper-responsiveness (rule out asthma)	1999 ATS Guidelines (AJRCCM, Vol. 161; 309-329; 2000) 2003 ERS Task Force, Indirect Airway Challenges (ERJ 2003; 21:1050-1068) 2005 ATS Pulmonary Laboratory Guidelines, 2nd Edition, Chapter 12

