EasyOne Pro
Advanced lung function testing with DLCO in a portable solution

Spirometry (FVC, FVL, SVC & MVV)
Single Breath CO Diffusion (DLCO)

Standards & Recommendations

Quality, Medical Devices & Electrical

FDA
510(k) market clearance

MDD 93/42/EEC
CE marked

Associations & Institutes
ATS/ERS 2019 and 2005, NIOSH/OSHA, SSA Disability

Languages
Brazilian Portuguese, Chinese, Croatian, Danish, Dutch, English, Finnish, French, German, Italian, Japanese, Norwegian, Portuguese, Russian, Spanish, Swedish, Turkish, Vietnamese

Gas specification

DLCO
- 9% to 11% medical grade helium
- 0.27% to 0.33% medical grade carbon monoxide
- 18% to 25% medical grade oxygen balance nitrogen
- The DLCO test requires a gas mixture within an accuracy range of <2%

Technical

Printing options
PCL standard, direct to printer or over network

Data management
EasyOne Connect (SQLite, MS SQL Server)

Export
HL7, XML, GDT, via USB, LAN Network

Data links
Ethernet port, USB, possibility to upgrade to WLAN

No. of tests
> 10'000 tests

Age range
Spirometry > 4 years, DLCO > 6 years

Dimensions
27 x 33.5 x 27 cm³ (H x W x D), 8 kg

Device classification
Protection class I
Type BF applied part

Operating conditions
Temp 5 - 40 °C/41 - 104 °F
Rel. Humidity 15 - 95 %, no condensation
Atmosph. Pressure 700 - 1060 hPa

Power Consumption
Up to 80 VA

Automated user guidance throughout maneuvers based on ATS/ERS standards 2019 and 2005
Z-score, LLN and %predicted for fast interpretation of results
Reproducible results ensure comparability in multicenter studies
Real-time curves and pediatric incentives
Immediate test quality feedback in accordance with ATS/ERS criteria
Export of pdf files and raw data
Flexible HL7 and XML interface for easy EMR integration
Only 1 gas for DLCO, no calibration gas required
Absolute hygienic solution with Spirette and Barriette consumables eliminates the risk of cross-contamination
Compact device with smooth surfaces for easy and thorough cleaning

TrueCheck™ – Always Safe & Ready to Test
TrueCheck™ takes care of the essential quality control for gas analysis testing. EasyOne Pro® is the only device proven to be accurate for a lifetime for DLCO measurements.

The original ultrasonic flow measurement is highly accurate in all flow ranges, independent of gas composition, pressure, temperature and humidity and does not require calibration during its life-time. The sensor is never in direct contact of the patient’s flow. NDD TrueFlow™ is a hygienic and resistance-free solution.

TrueFlow makes the difference
www.nddmed.com

The proven ultrasound technology
NDD TrueFlow™
NDD TrueCheck™

no calibration, no warm-up time, no moving parts
### Parameters

#### FVC
- ATI, BEV, EOTF, FEF10, FEF25, FEF2575, FEF2575_6, FEF40, FEF50, FEF50/FVC, FEF50/VCmax, FEF60, FEF75, FEF75-85, FEF80, FET, FET25-75, FEV, FEV5, FEV5/FVC, FEV7, FEV7/FVC, FEV75, FEV75/FVCmax, FEV1, FEV1/FEF25, FEV1/FVC, FEV1/VC, FEV1/VCmax, FEV3, FEV3/FVC, FEV3/VCmax, FEV6, FVC, MEF20, MEF25, MEF40, MEF40/VCmax, MEF50, MEF50/FVC, MEF50/FVCmax, MEF60, MEF60/VCmax, MEEF, MMEF, MMIF, MTC1, MTC2, MTC3, MTRC, PEF, PEFT, t0, Vcmx

#### FVL
- ATI, BEV, CVI, E50/150, EOTV, FEF10, FEF25, FEF2575, FEF2575_6, FEF40, FEF50, FEF50/FVC, FEF50/VCmax, FEF60, FEF75, FEF75-85, FEF80, FET, FET25-75, FEV, FEV5, FEV5/FVC, FEV7, FEV7/FVC, FEV75, FEV75/FVCmax, FEV1, FEV1/FEF25, FEV1/FVC, FEV1/VC, FEV1/VCmax, FEV3, FEV3/FVC, FEV3/VCmax, FEV6, FJC, MIF25, MIF2575, MIF50, MIF50/FEF50, MIF75, MIF90, MIF90/VCmax, MMEF, MMIF, MMIF, MTC1, MTC2, MTC3, MTRC, PEF, PEFT, PIF, t0, Vcmx

#### SVC
- ERV, IC, IRV, RF, VC, Vcex, Vcin, Vcmax, VT

#### MVV
- MVV, MVV6, MVVtime, Rf, VCext, VT

#### DLCO
- BHT, COHb, ColBarVol, CO Conc, HE Conc, O2 Conc, Anatomic Dead Space, System Dead Space, Discard Volume, DLadj, DLadj/VA, DLCO, DLCO/VA (KCO), ERV, FA CO, FA HE, FE CO, FEV1/FVC, FI CO, FI HE, FRC sb, FRC Cor, Hb, tI, Kroghs K, PaO2, RV sb, RV Cor, RV/TLC sb, TLC sb, TLC Cor, TLCO, VA sb, VA Cor, Vcext, Vcmx, Vd, VI, VT

### Predicted normal values Spirometry

#### GLI
- Quanjer 2012, Stanojevic 2009

#### North America

#### Latin America

#### Europe

#### Europe Scandinavia

#### Australia
- Gore Crockett 1995, Hibbert 1989

#### Asia

#### Africa
- Mengesha (Ethiopia), 1985

### Predicted normal values DLCO

#### North America

#### Latin America
- Vazquez Garcia (ALAT) 2016, Gochicoa 2019

#### Europe

#### Other

### Flow/Volume Sensor

- **Type**: Ultrasonic transit time
- **Flow Range**: ± 16 l/s
- **Flow Resolution**: 4 ml/s
- **Flow Accuracy (except PEF)**: ± 2% or 0.02 l/s
- **Volume Resolution**: 1 ml
- **Volume Accuracy**: ± 2% or 0.050 l
- **PEF Accuracy**: ± 5% or 0.200 l/s
- **MWV Accuracy**: ± 5% or 5 l/min
- **Resistance**: ~ 0.3 cm H2O/l/s at 16 l/s
- **Sample Rate**: 400 Hz (converted and stored with 200 Hz)

### Gas Sensor

- **CO**
  - **Type**: Non-dispersive infrared
  - **Range**: 0 to 0.35%
  - **Resolution**: 0.0001% (1 ppm)
  - **Accuracy**: ± 0.0015% (15 ppm)

### Tracer Gas Sensor

- **Helium**
  - **Type**: Ultrasonic transit time
  - **Range**: 0 to 50%
  - **Resolution**: 0.02%
  - **Accuracy**: 0.05%

### Accessories and order numbers

<table>
<thead>
<tr>
<th>Spirette</th>
<th>Box 50 pcs 2050-1</th>
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<tbody>
<tr>
<td>DLCO Bariet</td>
<td>Box of 50 pcs 3050-1</td>
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<tr>
<td>Annual replacement kit (filter pack, patient tube, one-way valve and overpressure valve)</td>
<td>3000-50.50SP</td>
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<tr>
<td>Stand for Sensor</td>
<td>3000-07.00</td>
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