



MiniSpir®

PC based
USB Spirometer with Oximetry option

New option:
Disposable turbine



Fast
Simple
Accurate

The most convenient way to access
a mini-laboratory in one small device

- Plugs directly into the USB socket on your PC
- Ideal and easy solution for custom made applications
- No batteries required



PC software
included

SpO2
option



| | | | |
|----------|----------|-----------|-------|
| FDA | ATS | ISO | ISO |
| Approved | Standard | 9001-2000 | 13485 |



Quality Instruments

MiniSpir®

PC based USB Spirometer with Oximetry option

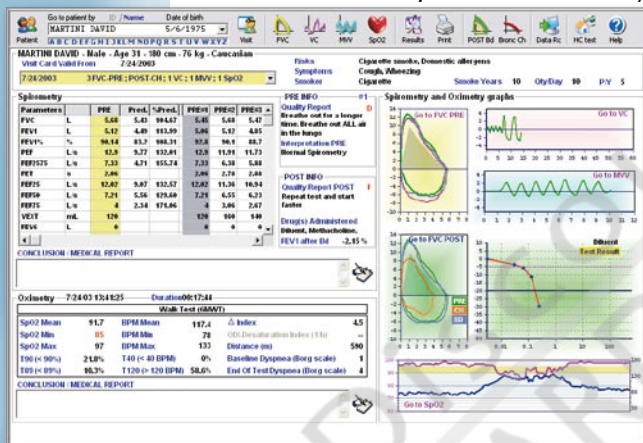
Spirometer

FVC, VC, IVC, MVV, PRE-POST BD
Internal temperature sensor for automatic BTPS conversion
Available with disposable or reusable digital turbine flowmeters

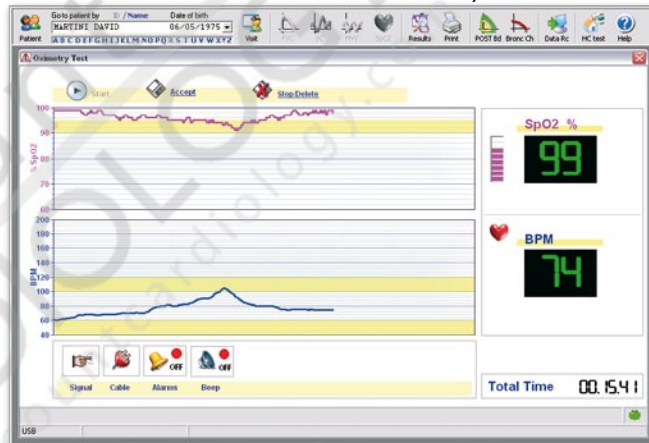
Oximeter

MiniSpir® calculates all major parameters recommend in peer reviewed scientific literature (ie: min, max, mean SpO2 and Pulse Rate, Delta Index, T90%, T89%, T88%, T5 etc.)

Complete test summary



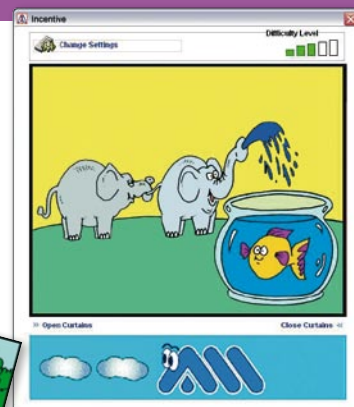
Online oximetry measurement



winspiroPRO PC - Spirometry program

Used worldwide by over 50,000 physicians

- On line PC connection with icon-based interface
- Real time Flow/Volume and Volume/time curves
- PRE-POST bronchodilator comparison
- Advanced spirometry test interpretation
- Pediatric incentive animations
- Lung age estimation
- Bronchial challenge test with FEV1 dose-response curve
- Several sets of predicted values
- Integration with EMR systems
- Data export also via e-mail

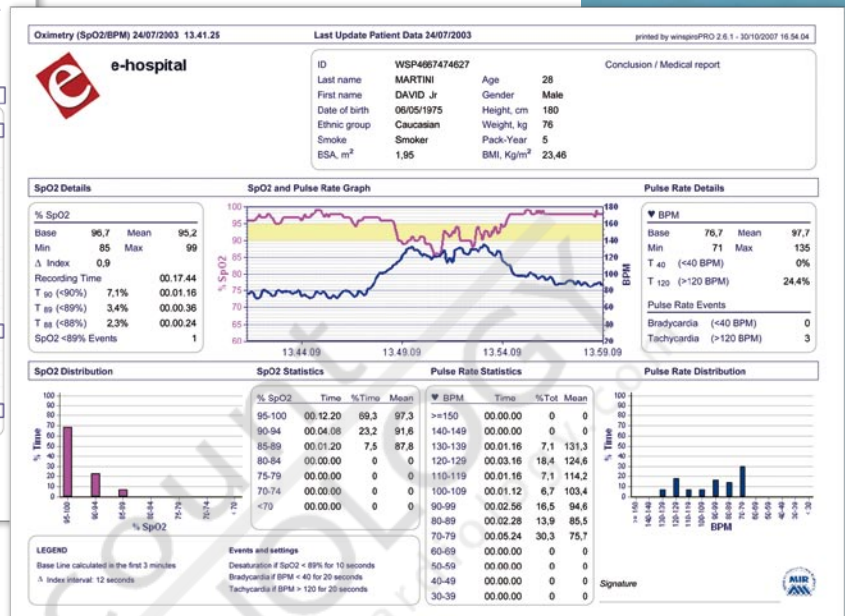


winspiroPRO PC - Oximetry program

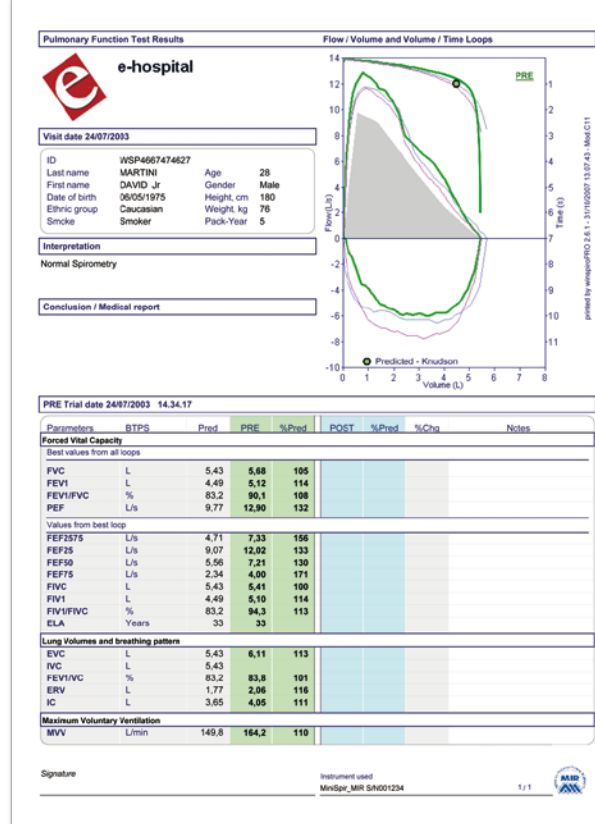
PC online test with real time SpO2 and Pulse Rate

- Complete SpO2 and Pulse Rate graphic trends
- Statistical analysis for assessing desaturation events
- Flexible reporting with several printouts available

Printout with oximetry report



Printout with spirometry report



Two different flowmeters available

FlowMir disposable turbine for single patient use

- High accuracy
- Easy to replace
- Very low cost
- Designed for use with MIR spirometers
- FlowMIR is factory calibrated
- Available in box of 100 pieces
- No maintenance – No filter – No problem
- Hygiene 100% guaranteed by single packaging



World's First International Patent Pending

Reusable turbine for long term operation

- High accuracy
- Long term stability
- Easy to clean or sanitized



MIR digital reusable and disposable turbines are developed in full compliance with ATS standards and guarantee accuracy in all environmental conditions

MiniSpir[®]

PC based
USB Spirometer with Oximetry option



MiniSpir[®] spirometer

Technical specification

Temperature sensor: semiconductor (0-45°C)
Flow sensor: bi-directional digital turbine
Flow range: ± 16 L/s
Volume accuracy: $\pm 3\%$ or 50 mL
Flow accuracy: $\pm 5\%$ or 200 mL/s
Dynamic resistance at 12 L/s: <0.5 cmH₂O/L/s
Communication port: USB
Power Supply: line powered from USB port
Dimension: 2.1x5.0x1.0 inch (52x128x26 mm)
Weight: 2.5 Oz (70 gram)

Measured parameters

FVC, FEV1, FEV1/FVC%, FEV3, FEV3/FVC%,
FEV6, FEV1/FEV6%, PEF, FEF25%, FEF50%,
FEF75%, FEF25-75%, FET, Vext, Lung Age,
FIVC, FIV1, FIV1/FIVC%, PIF, VC, IVC, IC, ERV,
FEV1/VC%, VT, VE, Rf, ti, te, ti/t-tot, VT/ti, MVV

Available options

- PC Software **winspiroPRO NET** Network Version
- Adult reusable SpO₂ finger probe
- Adult disposable SpO₂ finger probe
- Pediatric reusable SpO₂ finger probe
- Infant disposable SpO₂ probe
- Neonatal disposable SpO₂ probe
- Ear clip SpO₂ probe
- SpO₂ finger probe extension cable



SpO₂ Option

Technical specification

SpO₂ range: 0-99%
SpO₂ accuracy: $\pm 2\%$ between 70-99% SpO₂
Pulse Rate range: 30-254 BPM
Pulse Rate accuracy: ± 2 BPM or 2%

Measured parameters

SpO₂ [Baseline, Min, Max, Mean], Pulse Rate [Baseline, Min, Max, Mean], T90 [SpO₂<90%], T89 [SpO₂<89%], T88 [SpO₂<88%], T5 [Δ SpO₂>5%], Δ Index [12s], SpO₂ Events, Pulse Rate Events [Bradycardia, Tachycardia]

Standard price includes

- MiniSpir[®] base unit
- USB cable
- Carrying bag
- **winspiroPRO** software CD

Adult reusable finger probe



Pediatric reusable finger probe

winspiroPRO PC system requirements

Microsoft Windows: Vista, 2000, XP
Screen resolution: 1024 x 768
Hard disk space: 500 MB
USB socket available

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