

# CapnoTrainer®

for identifying, evaluating, and learning breathing habits

***A break-through product! The ultimate in breathing education!***

*Did you know that ALLOCATION OF CARBON DIOXIDE, through breathing, directly regulates body pH, electrolyte balance, blood distribution, hemoglobin chemistry, and kidney function?*

**A MUST FOR ALL THOSE WHO DO  
BREATHING TRAINING!**

**NEW!** The **CapnoPlus...**  
HRV & EMG accessory product  
See backside...



***Identify dysfunctional breathing habits and their effects on health and performance.  
Teach clients (or learn yourself) new breathing habits with the CapnoTrainer®.***

Learned **OVERBREATHING BEHAVIOR** leads to *exhaling too much CO<sub>2</sub>*, resulting in extracellular alkalinity. Shifts in pH may account for "unexplained" symptoms, psychological changes, effects of stress, and performance deficits.

Corporate coaches and employees  
Counselors and clients  
Teachers and students  
Performance consultants and clients

Human service providers and clients  
Health educators and clients  
Fitness trainers and sports enthusiasts  
Mental health practitioners and clients

Better Physiology Ltd.®

Distributors in the Asia, Australia, Europe, and North America

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## The CapnoTrainer®

The CapnoTrainer is a software-operated educational capnograph. It is an educational instrument for learning about breathing habits and their effects. It runs on PC computers and operates within all recent versions of Windows, including Windows 7 and 8. Although the instrument will operate on Apple MAC configured with Windows, Apple is NOT supported.

### *You may observe the following physiology with the CapnoTrainer:*

- PCO<sub>2</sub> waveform, in mmHg
- End-tidal CO<sub>2</sub> (PetCO<sub>2</sub>), in mmHg
- Breathing rate averages, in breaths per minute
- Airflow: aborted exhales, breath holding, gasping
- Coordinating breath: rate and depth

**RESTRICTED USE:** The CapnoTrainer® is an educational instrument designed for learning good breathing behavior, and is not intended for diagnosis and/or treatment.

## Practical Applications

### *Use the CapnoTrainer® for observing, identifying, teaching, and learning new breathing behavior patterns.*

- Identify dysfunctional breathing habits and their effects.
- Identify symptoms and deficits triggered by dysfunctional habits.
- Pinpoint specific dysfunctional breathing behaviors and their patterns.
- Identify the triggers for dysfunctional breathing habits.
- Discover motivational factors that perpetuate dysfunctional habits.
- Uncover specific reinforcements for dysfunctional breathing behaviors.
- Examine the relationship between breathing and respiratory physiology.
- See how thoughts, moods, and emotions change with breathing.
- Learn how mental and physical performance is altered by breathing.
- Evaluate the effects of breathing on learning, memory, and attention.
- See how breathing habits and defensiveness may be related.
- Examine how pain, injury, discomfort, and breathing may be linked.
- Discover how breathing may be mediating unexplained symptoms.
- Test for anaerobic threshold during fitness training.
- Help people overcome their fears about breathing.
- Learn to breathe intuitively rather than prescriptively.

### *If you are an educator, trainer, coach, counselor, or clinician use the CapnoTrainer® as a teaching and learning tool.*

peak performance, relaxation, attention, alertness, meditation, patient education, stress management, childbirth, motivational training, public speaking, learning enhancement, anxiety management (e.g., testing), anger management, mastering performance challenges (e.g., music, in aviation), athletic training, and breathing training of all kinds.

### *Learned breathing habits may trigger, exacerbate, perpetuate, or cause a wide variety of symptoms, deficits, and complaints.*

shortness of breath, chest tightness & pain, throat closure, sweaty palms, cold hands, tingling, numbness, heart palpitations, anxiety, apprehension, emotional outbursts, stress, tenseness, fatigue, weakness, exhaustion, dry mouth, nausea, dizziness, fainting, black-out, blurred vision, confusion, disorientation, attention deficit, poor thinking, poor memory, impaired judgment, reduced pain threshold, headache, trembling, twitching, shivering, muscle tension, spasm, stiffness, abdominal cramps, bloatedness.

## Software features

- Signals displayed alone and in multiple combinations
- Signals displayed in multiple graphic formats
- Live history screens, showing whole or part of session
- Evaluation, training, learning, and observational screens
- Multi-graph and multi-signal data review screens
- Zoom function, select graph & signal
- Gain & Auto-gain
- Signal offset & Auto-center
- Screen sweep time, slower/faster
- Freeze screen
- Pause screen, end of sweep
- Refresh screen
- Signal hiding
- Averaging function
- Set signal threshold
- Audio feedback
- Event marker, draws line and records note
- Select predefined task periods, e.g., baseline.

- Data recording on/off, pause, erase
- Save sessions to "trainee" files/names
- Select from among easy to use graphical data reports
- Review recorded data in "tape recorder" fashion
- Review, format, and save graphical reports
- Digital cursor for numerical readout on graphs
- Generate automatic Excel reports
- Export data

- Select predefined evaluation and training schedules
- Define your own automated task schedules
- Use Lesson Plan document for learning and teaching
- Read detailed INFO HELP screens for each screen display
- Refer to "Quick Start" Guide for all relevant software features

## The CapnoPlus™ (EMG, ECG, and HRV)

The CapnoPlus turns the CapnoTrainer into **a comprehensive breathing learning system** that provides for observing autonomic (ECG) and somatic (muscle) physiology while using the CapnoTrainer. It is an independent one-channel instrument that operates together with the CapnoTrainer within a single software application. **Observe the following physiology:**

- ECG (cardiac) signal: raw wave form and heart rate
- HRV: based on R-wave beat to beat calculations
- ECG spectral analysis: independent display of HRV band widths
- EMG (muscle): raw and rectified signals
- EMG spectral analysis: real-time 3-D display

### *Use the CapnoPlus™ for observing, identifying, teaching, and learning breathing-related habits and their patterns.*

- Observe breathing: somatic, autonomic, & respiratory physiology.
- Teach or learn relaxation based on breathing mechanics & HRV.
- Observe HRV bandwidths & their connections with emotion & stress.
- Identify breathing triggered autonomic changes (emotions).
- Monitor the use of breathing accessory muscles (e.g., trapezius).
- Identify breathing-triggered muscle contractions (e.g. masseter)
- Identify muscle habits associated with breathing mechanics.
- Teach & learn breathing mechanics, e.g., diaphragmatic breathing.



## Ordering Information

### **CapnoTrainer M: \$3,300.00**

Includes with capnography hardware, accessories, and software

### **Starter Kit: \$200.00**

Includes 100 nasal cannulas, 12 filters, DVD tutorial, & Getting Started CD

### **CapnoPlus: \$850.00**

Includes ECG, EMG, HRV, accessories, and initial supplies

### **CapnoTrainer Multiuser Software Application: \$600.00**

Operates up to 8 CapnoTrainers simultaneously on a single computer.

### **Extended Warranty Program (CapnoTrainer): \$400.00**

Replaces standard one year warranty: 2 years: defects and accidental damage

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