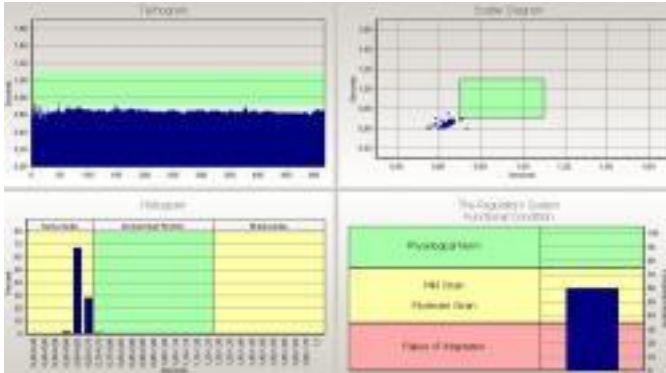


## New COPD treatment developed to increase FEV1 and Peak Flow

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COPD patients can now be successfully treated with Active Air therapy to improve their lung function.

Potsdam, 19 February 2009 – COPD (chronic obstructive pulmonary disease) is a chronic disorder of the respiratory tract which can be caused by long-term smoking or ongoing exposure to chemical substances or fine dust without adequate protection. Over time the harmful substances damage and destroy the alveoli. In some cases the alveoli degenerate. As the disease progresses both external respiration (oxygen transport from the air into the blood) and also internal respiration (oxygen "combustion" in the cells to produce energy) is impaired. Firstly, insufficient oxygen reaches the blood meaning there is not enough "fuel" to generate energy in the cells. Secondly, the oxygen in the cells can no longer be "combusted" cleanly and efficiently leading to a further shortage of energy in all the cells and organ systems. The severely constricted bronchi cause permanent shortness of breath. This triggers considerable anxiety in those affected so that they are in a permanent state of stress which also always takes its toll on relatives. Patients feel weak and their functional capacity and mobility are severely restricted by the lack of oxygen.

In the past COPD has been treated with highly concentrated oxygen delivered from an oxygen bottle or an oxygen concentrator and various drugs. This type of therapy certainly relieves the symptoms and improves external respiration to some extent, however it also causes serious long-term side effects and complications. Moreover damage to the mitochondria (energy generating centres in the cells) cannot be rectified by this method. Patients' quality of life becomes severely limited through their continuing dependence upon external oxygen.

So far attempts to treat COPD have therefore been directed solely at the symptoms of the disease which require relief. In contrast, the aim of the new Active Air therapy is to regenerate the alveoli and bronchial cells and to improve the body's self-regulatory powers. In the long term both external and internal respiration should be noticeably improved. The hope is that, with time, patients will need fewer drugs, thereby also reducing the side effects. As soon as it is possible to reduce or even stop their ongoing therapy with oxygen, the overproduction of oxygen radicals in the body will also decline with the result that lung tissue can set repair processes in motion once again. In the long term Active Air therapy should increase patients' quality of life and functional capacity, making them more mobile and liberating them from the oxygen bottle.

Active Air therapy operates by activating inhaled air in the activation units of the Active Air equipment by means of photodynamic processes. The energy which is released (relaxation energy from singlet oxygen) is carried by water molecules in air humidity and inhaled through nasal cannulae. No foreign substances or extra oxygen are introduced into the body by this method. In this way external respiration (measured by pulse oximeter) is improved while, at the same time, the autonomous nervous system's ability to regulate (HRV analysis) is increased leading to improved self-regulation by the body.

Evidence of the effectiveness of Active Air therapy was obtained by means of heart rate variability (HRV) and at the IASP of Humboldt University in Berlin (Active Air therapy studies/ evidence [www.active-air.com](http://www.active-air.com)). Furthermore the effectiveness of the treatment has been confirmed by countless COPD and asthma patients through improved peak flow and FEV1 values.

Medical Biophysics GmbH develops, produces and sells Active Air therapy devices (medical products) as well as Active Water devices used to treat drinking water according to chemical, physical and biological criteria.

As well as medical practices and clinics, customers of Medical Biophysics GmbH and its distributors include employers and employees, non-medical practitioners, physiotherapists, the sports and wellness sector and private individuals.

The company is certified according to ISO 13485

(manufacturer of medical devices)

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