

# Basic Principles of Buteyko therapy

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Thirty eight years have passed since I revealed that a great number of so-called "civilisation-induced diseases" widely spread now (bronchial and vasomotor spasms, allergic reactions, etc.) are caused by one and the same factor, namely, alveolar overventilation, or in other words, by deep-type breathing. I conceived the idea of diminishing the depth of respiration, i.e. its normalisation, and I became convinced that it can contribute to recovery. Experiments have confirmed this assumption, for it has been substantiated by general laws of physiology, biochemistry, biology and other sciences.

Here are the basic postulates of our theory:

1. It is known that in deep breathing a large amount of CO<sub>2</sub> is removed from the organism and, consequently, its content is reduced in lungs, blood and tissue cells.

Deficiency of CO<sub>2</sub> caused by deep-type breathing produces pH alkaline shifts in tissue cells and in the blood.

pH shift interferes with the activity of all proteins (approx. 1000) and vitamins (approx. 20) and brings about alterations in metabolic processes. Consequently, when pH reaches the value of 8 the metabolic disorders can produce a fatal result.

2. It is known that CO<sub>2</sub> deficiency causes spasms in the smooth muscles of bronchi, cerebral and circulatory vessels, intestines, biliary ducts and other organs. Late in the 19th century Werigo, a Russian researcher from the town of Perm, discovered a peculiar dependence: as a result of diminishing the CO<sub>2</sub> content in blood, the oxygen binds with the blood haemoglobin and impairs the transport of oxygen to brain, heart, kidneys and other organs. In other words, it can be described as follows: the deeper the breathing, the less amount of oxygen reaches the brain, heart, kidneys and other organs. This is precisely the law which forms the basis of our discovery but has not been appropriately appreciated up to now. The dependency revealed by Werigo has been concealed and ignored. At the same time similar regularities were discovered by Bohr, a Swedish [*Ed: Danish*] researcher, and became known as the Bohr effect much later. Unfavourable treatment of the above dependency makes it impossible to clearly understand the theory suggested.
3. Brain oxygen starvation (hypoxia) caused by deep breathing promotes more intense bronchial and cardiac spasms. Hypoxia in vital organs is counter-balanced by the rise in arterial tension (artery hypertension), enhances blood circulation and the provision the organs with blood. Oxygen

starvation in combination with overventilation produces a false feeling of air deficit, excites the respiratory centre, enhances breathing intensity and adds to the progress in disease development. CO<sub>2</sub> deficiency in the nerve cells excites all the structures of the nervous system thus making the process of breathing still more intensive.

As a result, oxygen starvation in nervous cells in combination with metabolic distortions and nervous system hyperexcitation brings about mental disorders, destroys the nervous system (sclerosis of cerebral vessels) and, finally, causes a personality degradation.

Disorders brought about by deep breathing are aggravated by environmental pollution, pesticides, chemicals and drugs found in nutrition products. If assumed as such, the basic principles of Western medicine, the remedial and preventive measures based on them which widely employ deep-breathing methods just add to the development of such diseases, since the application of strenuous exercise and the administration of drugs relaxing the bronchi and blood vessels which enhance the removal of CO<sub>2</sub> from the body do not improve a patient's condition, but make it still worse. This is the reason why the so-called "civilisation-induced diseases" cannot be subject to treatment and are so widely spread. The discovery of the fact that the main cause of such diseases is deep-type breathing, allows to rigorously substantiate and prove by experiments the fallacy of existing remedial methods and principles.

A deep-breathing (overventilation) test suggested by the author can serve as decisive evidence that this method is true. A key point can be described as follows: a patient is offered to make his breathing deeper and to evaluate the result of a well-known command: "Take a deep breath!" In a few seconds or minutes a deep-breathing test will cause or enhance the pathological symptoms, while the reduction of the depth of respiration will remove them almost at the same rate. Thus, the only justified principle to be used for prevention and treatment is the reduction of the depth of respiration to restore the normal respiratory function.

On this basis the method of volitional normalisation of deep-type breathing or the method of volitional control has been developed. The essence of this technique is that a patient, by the exertion of will, deliberately diminishes the respiratory depth by relaxing the smooth muscles [*Ed.: This should be "respiratory muscles", clearly a translation error*] till he feels a slight deficit of air. The method can be assimilated by adults who do not suffer mental disorders and, by children aged above three.

The method can be widely used in obstetrics for maternity patients and the new-born, for teaching children the norms of physiology and for health-improvement programs. The ideas developed by the author can be widely used in space medicine, surgery (preparation to surgical interventions), pedagogics, training vocal singers, sports, etc.

To general opinion, medicine like other branches of science requires a comprehensive restructuring. The author considers his ideas and other similar progressive approaches which have been ignored earlier, as a basis for medicine-of- the-future.

The top priority objective, in our opinion, is to provide people with information concerning this method in order to stop the propaganda of the advantages of deep- type breathing in the mass media and to withdraw deep-breathing exercises from sanitary (ed: health care) institutions.

The method developed by the author will win when every human being realises that his in-born greediness (including breathing) to take more is the cause of disasters, diseases and collapses.

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