

# Clinical Trials on the Effectiveness of Buteyko

Asthma exacerbations in children immediately following stressful life events: a Cox's hierarchical regression  
S Sandberg, S Jarvenpaa, A Penttinen, J Y Paton, and D C McCann Thorax 2004;59 1046-1051

Ventilation Test In Patients With Bronchial Asthma

Buteiko KP, Odintsova MP, Nasonkina NS. Vrach Delo. 1968 Apr; 4:33-6. PMID: 5664602 [PubMed - indexed for MEDLINE]

Obstructive Sleep Apnoea and breathing retraining

Mary Birch, RN,BA,MBioE, Grad Dip Soc, BIBH Clinical Update 74, Australian Nursing Journal, August 2004

Buteyko Breathing Technique for asthma: an effective intervention

Patrick McHugh, Fergus Aitcheson, Bruce Duncan, Frank Houghton Journal of the New Zealand Medical Association, 12-December-2003, Vol 116 No 1187

Health Education: Does the Buteyko Institute Method make a difference?

Jill McGowan, Education and training consultant in Asthma Management. Thorax Vol 58, suppl III, page 28, December 2003.

Beta2-Agonist Tolerance and Exercise-induced Bronchospasm

Am. J. Respir. Crit. Care Med., Volume 165, Number 8, April 2002, 1068-1070 Robert J. Hancox, Padmaja Subbarao, Dennis Kamada, Richard M. Watson, Fredrick E. Hargreave, and Mark D. Inman Asthma Research Group, Firestone Institute for Respiratory Health, McMaster University/St Joseph's Hospital, Hamilton, Ontario, Canada

End-tidal carbon dioxide measurements as a prognostic indicator of outcome in cardiac arrest.

Ahrens T, Schallom L, Bettorf K, Ellner S, Hurt G, O'Mara V, Ludwig J, George W, Marino T, Shannon W. Barnes-Jewish Hospital, St. Louis, MO, USA. Am J Crit Care 2001 Nov;10(6):391-8

Repeated Hyperventilation Causes Peripheral Airways Inflammation, Hyperreactivity, and Impaired Bronchodilation in Dogs

MICHAEL S. DAVIS and ARTHUR N. FREED Am. J. Respir. Crit. Care Med., Volume 164, Number 5, September 2001, 785-789

Cardiovascular side effects of inhaled salbutamol in hypoxic asthmatic patients

Thorax; London; Jul 2001; J Burggraaf; R G J Westendorp; J C C M In't Veen; R C Schoemaker; et al;

Study explains success of Buteyko

Megan Howe - Australian Doctor, p 20, 11 May 2001

Prevalence of dysfunctional breathing in patients treated for asthma in primary care: a cross sectional survey

M Thomas, RK McKinley, E Freeman, C Foy British Medical Journal 2001;322:1098-1100 (5 May)

Hyperventilation and asymptomatic chronic asthma

Thorax; London; Dec 2000; C A Osborne; B J O'Connor; A Lewis; Van Kanabar; W N Gardner;

Buteyko breathing techniques in asthma: a blinded randomised trial

Simon D Bowler, Amanda Green and Charles A Mitchell Medical Journal of Australia 1998; 169:575-578

Effects of inhaled CO<sub>2</sub> and added dead space on idiopathic central sleep apnea

Xje A. Rankin F. Rutherford R. Bradley TD. Journal of Applied Physiology, 82(3):918-26, 1997 Mar.

Changing patterns in asthma morbidity and mortality.

Sears MR J-Investig-Allergol-Clin-Immunol 1995 Mar-Apr; 5(2): 66-72.

Beneficial effect of inhaled CO<sub>2</sub> in a patient with non-obstructive sleep apnoea.

J Neurol 1993 Nov;241(11):45-8 (ISSN: C340-5354) Villiger PM; Hess CW; Reinhart WH Medizinische Klinik der Universitat, Inselspital, Bern, Switzerland

Rediscovering the importance of nasal breathing in sleep or, shut your mouth and save your sleep

Lavie P J Layngol Otol 1987 June;101(6):558-63

Breathing Patterns

Chest, 1983, 84:202-205 Tobin et al (Summary)

2003, Glasgow, United Kingdom

According to the recent press release (4 December, 2003) of the British Thoracic Society (the UK's professional body of respiratory specialists), "Nurse, Jill McGowan, led the world's largest clinical trial to measure the effects of the Buteyko method (breathing retraining exercises in conjunction with conventional asthma management). 384 of the initial 600 participants (64%) completed the trial...Those patients who were taught the Buteyko Institute Method all experienced significant improvement in asthma, with reduced symptoms, reduced medication and improvement in quality of life:

- asthma symptoms decreased by an average of 98%;
- use of reliever inhalers decreased by an average of 98%;
- use of preventor inhalers decreased by an average of 92%."

McGowan J, Health education in asthma management – Does the Buteyko Institute Method make a difference? *Thorax* December 2003, Vol. 58, sup. III, p.28.

2003, Gisborne Hospital, Gisborne, New Zealand

In this blinded randomised controlled trial conducted in 38 people with asthma Buteyko Breathing Technique group was compared with control (McHugh et al, 2003). The Buteyko group was taught by a Buteyko practitioner Russell Stark. As in the previous western trials, the Buteyko group reduced inhaled steroid use by 50% and  $\beta_2$ -agonist use by 85% at six months from baseline. In the conclusions, the medical professionals wrote, "Conclusions BBT is a safe and efficacious asthma management technique. BBT has clinical and potential pharmacoeconomic benefits that merit further study."

McHugh P, Aitchison, Duncan B, Houghton F, Buteyko Breathing Technique for asthma: an effective intervention, *New Zealand Medical Journal* 12 December 2003, 116 (1187):710-716.

1999, Alfred Hospital, Prahan, Australia

18 patients with mild to moderate asthma were taught the Buteyko method by a video and compared with 18 control subjects (Opat et al, 2000). The study found a significant improvement in quality of life and significant reduction in inhaled steroid use.

Opat AJ, Cohen MM, Bailey MJ, Abramson MJ, A clinical trial of the Buteyko Breathing Technique in asthma as taught by a Video, *J Asthma* 2000; 37(7): 557-564.

1990, Shevchenko's Central Hospital, Kiev, Ukraine

50 patients with radiation sickness due to Chernobyl's nuclear plant disaster. 82% patients had considerable improvement in blood analysis, cardiovascular parameters (blood pressure, pulse, etc.), work of the digestive system, and reduction in medication. No cases of side effects or complications due to the breathing exercises were reported (p.221, Zimchenko & Romanenko, 1991). Zimchenko VN & Romanenko NF, Conclusions on practical trial of Buteyko method, conducted in Department of Radiation Pathology of Central Republican Hospital of Shevchenko region (Ukraine) during 06.03.1990-07.04.1990 [in Russian], in *Buteyko method. Its application in medical practice*, ed. by K.P. Buteyko, 2-nd ed., 1991, Titul, Odessa, p.222-227.

1981, Sechenov's Medical Institute, Moscow, USSR

52 children (34 in-patients and 18 out-patients; 3-15 years old) with regular asthma attacks (once per day or more); 41 of them had pneumonia, 27 rhinitis, 36 chronic tonsillitis. All had problems with breathing through the nose, palpitations, and were bronchodilator users. In 1-5

days the patients were able to stop the attacks, cough, blocked nose, and wheezing, using the method. Observations in 1-3 months showed considerable improvements (cessation of heavy attacks or a total disappearance of the symptoms) in 83%, some improvement (less heavy attacks and considerable reduction in medication) in remaining 17%. Their average CP increased from 4 to 30 s, aCO<sub>2</sub> from 25 to 36 mm Hg. Higher blood concentrations of IgA, IgM, IgG, and IgE were found, according to laboratory reports. Blood pressure normalised, forced expiratory volume raised over 5 times. Significant increases in lung volume, expiratory speed, and other parameters were found. Average breath holding time (CP) increased from about 3-6 s to over 30 s. For more information on this trial visit [www.buteyko.com/trials.html#children](http://www.buteyko.com/trials.html#children).

1968, Institute of Pulmonology, Leningrad, USSR  
50 patients with severe bronchial asthma, hypertension and stenocardia, all of them with many years of heavy medication, most with steroid deficiencies and organic complications; success rate 95% (Khoroscho, 1982). Khoroscho AE, Interview with K. P. Buteyko (1982), in Buteyko method. Its application in medical practice, ed. by K.P. Buteyko, 2-nd ed., 1991, Titul, Odessa, 168-180.

## Beta<sub>2</sub>-Agonist Tolerance and Exercise-induced Bronchospasm

Am. J. Respir. Crit. Care Med., Volume 165, Number 8, April 2002, 1068-1070

It is concluded that regular  $\beta_2$ -agonist treatment leads to increased exercise-induced bronchoconstriction and a suboptimal bronchodilator response to  $\beta_2$ -agonist. The data suggest that previous regular  $\beta_2$ -agonist treatment may lead to a failure to respond to emergency bronchodilator treatment during an acute beta asthma attack and support current opinion that regular short-acting beta-agonist therapy should not be used to treat asthma.