# Level 1 Graduates Forum

4/24/2019

# Do Not to Teach

- Comfortable pause=Control pause
- Sets
- “Breathing exercises”
- People with complicated health history and chronic conditions
- Minimize scientific explanations
- Oxygen advantage

# Instead, Focus on

- Conceptual framework that we pin our techniques to
- Changing maladaptive breathing habits
- Help people to increase awareness and understanding, and take healthy actions
- Posture
- Relaxed breathing, Mini pauses
- Nasal breathing
- Effortless, efficient, quiet, unconscious/passive

# Buteyko Breathing Exercises

*"The essence of my method is in decreasing the depth of breathing. You would ask me how. The best way is through relaxation of the muscles that potentiate the breathing action. What then occurs is a sensation of having insufficient air if the breathing is reduced. These are the instructions -- the whole of the method."*

Dr. Konstantin Buteyko

# Posture

Breathing, Posture, and Musculo-skeletal Pain

The structure-function continuum

- Structure governing function
- Prolonged modifications of function such as inappropriate breathing pattern induce structural changes
- Leading to reinforced dysfunctional breathing

# Breathing, Posture, and Musculo-skeletal Pain

The structure-function continuum

- Structural adaptations can prevent normal breathing function
- Abnormal breathing function ensures continued structural adaptational stress
- **Restoration of normal function requires addressing both the structural and functional components**

Multidisciplinary approaches to breathing pattern disorders/Chaitow, Bradley, Gilbert

# Relaxed Breathing

- Sit upright comfortably and settle yourself by breathing smoothly and quietly through your nose
- Focus on the areas where you feel movement
- Concentrate on the area around your lower chest. Try to relax it as much as possible

*Ask questions to help patients develop awareness/understanding/change*

# Relaxed Breathing

- Observe and feel how the area of your diaphragm (front, side, back) gently and softly expands slightly on the inhale and falls back on the exhale
- Relax the rest of your muscles in your face, jaw, eyes, neck, shoulders
- Let the breathing become lighter

# Relaxed Breathing

- If you feel short of breath or anxious you may force the breathing, take a break
- As you relax your breathing notice how movement in the upper chest and shoulder diminishes
- Don’t increase tidal volume
- Take your pulse before and 1 minute after RB

# Relaxed Breathing

- Follow your breath, feel your breathing, observe your breathing
- Notice how as you continue to relax breathing becomes:
- Quieter, calmer, gentle, smooth, soft, easy, light, effortless
- Take the time to complete the breath out
- Don’t rush the breath in

# Crocodile Posture

# Reduced Breathing

**Uses of:**

- 1. To reduce chronic hyperventilation symptoms
- 2. To restore healthy automatic breathing patterns
- 3. To normalize carbon dioxide levels in the bloodstream and alveoli
- 4. To reset the respiratory center back into a healthy range
- 5. To improve oxygenation of the tissues
- 6. To improve efficiency of breathing (very important for those with diminished lung capacity)

# Reduced Breathing

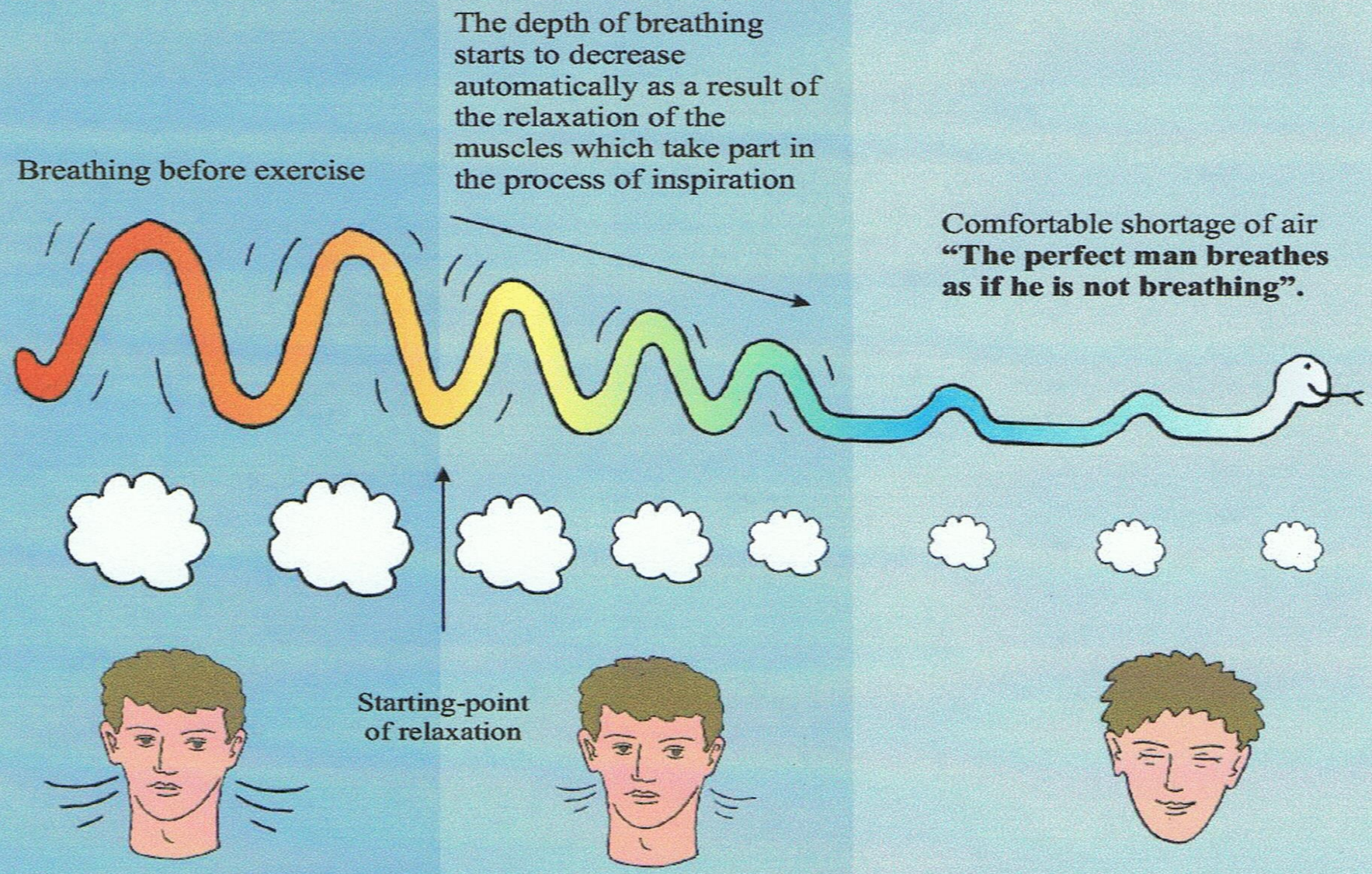
- Always start with Relaxed breathing DO NOT TEACH IF PERSON CAN'T RELAX, OR IF YOU CAN'T DO IT
- Notice how the volume of air is decreasing until you feel slightly uncomfortable
- Exhale without effort
- Finger to nose (feather breathing)
- Slow exhale
- Quiet chest/diaphragmatic breathing
- 5-10% less – slight hunger for air not starvation

# More Ideas for Reduced Breathing

- Good breathing is almost invisible and silent, exhalation is longer than the inhalation
- Initially, the reduction of breath is achieved by relaxation alone
- Should not feel distressed at any time
- Follow the breath, slowly softening it but not to the point that an involuntary diaphragm motion happens
- Rhythm shouldn't change

**“The perfect man breathes as if he is not breathing”**

It should be easy and pleasant to reduce breathing.



# Informal Practice

- Blend Relaxed/Reduced Breathing into your daily activities
  - Watching TV, meetings, waiting rooms, bus, driving, walking, washing the dishes, church
- Use hourly check-points of posture and breathing

# Adjusting the Program For Busy People

- Reduce your breathing for ten minutes by three times daily
- Go for 20-minute walk during your lunch break

# The diaphragm's relationship with GI & vascular systems

LES/diaphragm coupling: seminal work

- LES needs the diaphragm to control GER

  Shafik 2004, Pandolfino 2007

- IMT improves LES function & decreases GERD symptoms

  Nobre e Souza 2013:

- Diaphragm biofeedback training decreases GERD symptoms

  Sun 2015:

- Venous return coupling: diaphragm aids venous return

  Pinsky 2005, Fasshauer 2014, Uva 2015

Mary Massery, PT

Otolaryngol Head Neck Surg. 2015 Feb;152(2):369-73. doi: 10.1177/0194599814559383. Epub 2014 Dec 1.

# Novel porous oral patches for patients with mild obstructive sleep apnea and mouth breathing: a pilot study.

Huang TW[1], Young TH[2].

⊕ Author information

## Abstract

**OBJECTIVES:** Habitual open-mouth breathing (OMB) during sleep can cause snoring and obstructive sleep apnea (OSA). This study used a porous oral patch (POP) to treat patients with mild OSA and OMB during sleep. The subjective and objective outcomes were evaluated.

**STUDY DESIGN:** Prospective study.

**SETTING:** Tertiary referral center.

**SUBJECTS AND METHODS:** Patients with ≥5 events hourly but <15 hourly on the apnea-hypopnea index (AHI) were enrolled. All patients slept with their mouths closed by using the POP, which is a porous skin pad consisting of 3 layers: silicone sheet, polyurethane foam, and polyurethane film. Before treatment and during treatment, subjective outcomes were assessed using the Epworth Sleepiness Scale (ESS) and visual analog scale (VAS) of snoring. Objective outcomes were assessed using polysomnography and cephalometry.

**RESULTS:** Thirty patients were enrolled in this study. All patients slept with their mouths closed while using a POP. The ESS and VAS of snoring scores were 8.1 ± 1.5 and 7.5 ± 2.0 before the POP, respectively, in contrast to 5.2 ± 1.6 and 2.4 ± 1.4 while using a POP, respectively ($P < .05$). The median AHI score was significantly decreased by using a POP from 12.0 per hour before treatment to 7.8 per hour during treatment ($P < .01$). The snoring intensity and median snoring index were 49.1 ± 10.8 dB and 146.7 per hour before the POP, respectively, which decreased to 41.1 ± 7.8 dB and 40.0 per hour while using a POP, respectively ($P < .01$). Cephalometry revealed that the retropalatal space and retrolingual space were 7.4 ± 1.6 mm and 6.8 ± 2.5 mm before the POP, respectively, compared with 8.6 ± 1.2 mm and 10.2 ± 1.8 mm during treatment, respectively ($P < .01$).

**CONCLUSION:** The POP is a useful device to treat patients with mild OSA and habitual OMB.

# References


- RAVINDER K. MITTAL, M.D. The Crural Diaphragm, an External Lower Esophageal Sphincter: A Definitive study

- Novel porous oral patches for patients with mild obstructive sleep apnea and mouth breathing: a pilot study

https://www.ncbi.nlm.nih.gov/pubmed/25450408

# Go deeper in your own practice