

## The Facts behind the Buteyko Method, check with your doctor if in doubt:

1. Overbreathing (breathing more than 6 ltrs of air a minute, either by larger breaths or more frequent breaths or both) leads to a lowering of the carbon dioxide levels in the lungs and body.
2. Lowered carbon dioxide levels (less than 5%) leads to spasm of smooth muscles that wrap around airways, blood vessels, bladder and other vital organs.
3. Lowered carbon dioxide levels lead to the blood holding onto oxygen more strongly and not releasing it fully to the tissues. (Bohr Effect)
4. Lowered carbon dioxide levels changes the acid/alkaline balance of the blood thereby impairing the entire chemistry of the body.
5. Chronic long term overbreathing leads to receptors in the brain to accept and maintain lower levels of carbon dioxide in the blood, thereby ensuring the continued state of overbreathing to the detriment of the person's health.
6. Overbreathing and the consequent chemical changes has been shown to be associated with over a hundred symptoms including panic attacks, tightness of chest, hypertension, breathlessness, asthma, increased heart rate, angina like chest pains, dizziness, seizures, and many more.

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## What will Buteyko do for me?

- Help control your ME or CFS
- Help reduce your medication
- Reduce your symptoms of asthma, sinusitis, hayfever, breathlessness, allergies etc.
- Provide you with a greater understanding of your condition and medication use
- Give you an improved performance in sport and exercises

## References:

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# Buteyko

(pronounced bew-tey-ko)

ME Chronic  
Fatigue Syndrome



# Chronic Fatigue Syndrome

for

# Better Health

## An Introduction to ME or CFS

To find yourself feeling tired almost all the time, that any physical activity causes extreme fatigue that may take hours or even days to recover from and to be exhausted almost as much by even mental activities, is the experience and life for sufferers of ME or CFS.

This has been made worse in the past by the erroneous belief of many people that such patients were malingerers or hypochondriacs.

Diagnosis was difficult because there were no analysis criteria for doctors to rely on, but in 1994 a group of Chronic Fatigue Syndrome researchers (Fukuda et al) set down specific criteria as a diagnostic aid.

### The Criteria Check List

1. The person must have had severe and chronic fatigue for at least six months and no other medical condition found. Conditions which have similar symptoms include: sleep apnoea, hypothyroidism, severe depression, schizophrenia, eating disorders, cancer, autoimmune disease, chronic low grade infection and obesity. These must be ruled out.

2. At least four of the following eight symptoms must have appeared and be present at the same time during this period:

- Impairment of short-term memory or concentration.
- Waking up tired even after a good sleep.
- Tender lymph glands.
- Muscle pains.
- Pain without swelling or redness in more than one joint.
- Headaches of a new type, pattern or severity.
- Sore throat.
- Not feeling well for more than twenty-four hours after doing physical exercise or exertion.

## Who Gets ME or CFS?

ME / CFS mostly affects young adults aged between twenty and forty years of age, but can also be found in children and teenagers. The incidence is not related to any particular social group but women suffer more frequently from this condition than men (Lloyd 1990)

### Why ME or CFS Occurs

A major stress such as an illness, toxic overload or viral infection usually occurs before ME / CFS starts, but there is no one thing common to all sufferers and many people experience similar events without developing the syndrome, which leaves the exact source a mystery to medical science.

Hans Selye (1984), in his book "Stress of Life" may have an explanation for this problem. He explains that stressors deplete an "adaptation energy bank" over time. It is possible that some people have a lower reserve energy than others and are pushed into exhaustion states too easily. He proposes there are three parts to our dealing with stressors:

1. The alarm reaction
2. The stage of resistance
3. The stage of exhaustion

These stages are repeated time and time again throughout our lifetime and normally we recover each time without long term problems.

This process is also part of our built-in flight or fight response to stressors, and when there are repeated stressors our breathing is increased, blood flow to the brain is lowered along with reduced glucose delivery, creating cognitive problems (Ley 1994) when even simple sums seem difficult. Headaches are often associated with this lack of oxygen or hyperventilation-related muscle tension.

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## Hidden Hyperventilation

Any stress or fright will trigger the 'fight or flight' mechanism that leads to increased breathing (hyperventilation), but without increased physical activity (running or fighting) this causes a drop in carbon dioxide (CO<sub>2</sub>) levels in the body.

This has two main physiological effects, first, as the blood becomes more alkaline, less oxygen is released to the tissue cells and more lactic acid is produced causing the breathing sensors in the brain to increase the breathing rate.

Secondly, the low CO<sub>2</sub> levels cause smooth muscle throughout the body to spasm. Blood vessels, so affected, narrow reducing the flow of blood to the brain, for every 1mm of Hg pressure reduction of CO<sub>2</sub> the brain receives two per cent less blood flow (Raichle 1972).

This combined with the Bohr Effect (reduced release of oxygen from the blood), can mean the brain may receive up to 50% less oxygen, which is a major stress that can result in feelings of extreme anxiety (Ley 1994).

### Buteyko Helps Overcome Fatigue

We know severe prolonged stress is debilitating (Tortora 1984), stress causes hyperventilation (Timmons 1994), hyperventilation causes stress (Ley 1994) and that it is easy to maintain chronic hyperventilation (Innocenti 1997)

Buteyko teaches how to break the vicious cycle by restoring normal breathing patterns, removing excess stress, developing good dietary habits & drinking sufficient water and having adequate good sleep.

*" I am very excited about discovering the Buteyko Breathing Techniques because it is totally natural and has given me a lot more energy. To the extent, that it has changed my physical and social lifestyle." Esther*