

Diaphragm Breathing

The primary goal of breathing training is to restore a functional breathing pattern with an appropriate volume of air breathed. Breathing is nasal and diaphragm dominant. This helps soothe the airways so there is less irritation and less inflammation. Slow the pace and intensity when exerting or exercising. Mouth breathing is reserved for short duration, high intensity exertion only.

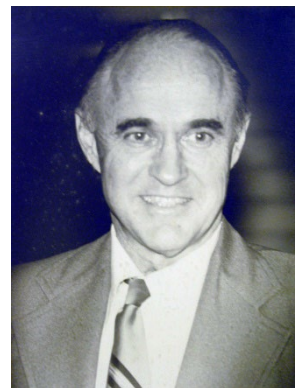
The Buteyko approach is gentle enabling the body to rediscover the natural breathing wave. It is important to allow the breath rather than trying to control it. Breathing in this more natural way can restore vagal tone and help the body stay in a parasympathetic (rest and recover) state. This enables you to stay calmer in stressful situations.

Daily practise of the breathing exercises coupled with awareness and correction of habits such as mouth breathing can restore a functional breathing pattern. A functional breathing pattern is one that adapts to all situations; when exercising, working, resting, and sleeping.

The Buteyko programme is designed to recalibrate the automatic CO₂ set point of respiration for effective and sustained relief from breathing related disorders. These include asthma, hay fever, chronic cough, chronic nasal congestion, snoring, sleep apnoea, insomnia, migraine headaches, chronic fatigue and anxiety disorders, including panic attacks. The programme helps boost natural immunity and is used by athletes to boost athletic performance.

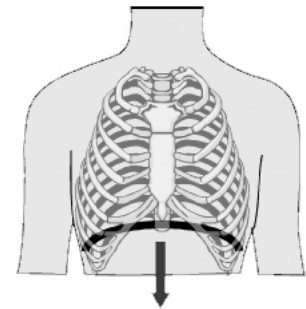
“All Chronic pain, suffering and diseases are caused from a lack of oxygen at the cell level.”

Professor A.C. Guyton Textbook of Medical Physiology



What is a diaphragm?

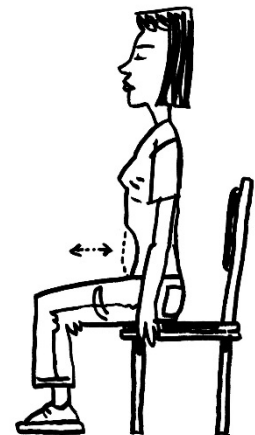
- The diaphragm is a postural muscle and, like the heart, does not fatigue.
- The diaphragm is the primary respiratory muscle.
- At rest 80% of the breathing effort should be diaphragmatic.
- Using the upper chest muscles robs the body of oxygen and can contribute to fatigue and reduced athletic performance.
- Unlike the diaphragm these muscles easily fatigue.
- Poor diaphragm tone can contribute to digestive problems like gastric reflux. ^{1,2}



Contraction of the diaphragm initiates the inhalation

Diaphragm Breathing Exercise

1. Sit with upright posture on a stable firm chair.
2. Edge forward so that the 'sitting bones' are positioned near the front edge of the chair. Ensure correct chair height so that upper legs are parallel with the floor, knees directly over the ankles, feet flat on the floor.
3. Maintain this posture while breathing gently and rhythmically through your nose. You should feel a shift of the breathing from the chest to the belly.
4. Try to focus your breathing in the belly, keeping it as soft and gentle as you can. There should be almost no movement in the upper chest.
5. Practise quiet "invisible" breathing for 5 minutes. One goal of this exercise is to train your body to breathe less air.



Practising this exercise seated forward on the chair helps to drop the pelvic floor and engage the diaphragm. Let the body breathe and avoid trying to force or control the diaphragm. Regular practice of diaphragmatic breathing has been clinically shown to reduce symptoms of gastric reflux.^{1,2}

If sitting forward is too uncomfortable or if you struggle to relax then you can sit back in the chair. However, try to do the breathing exercise seated rather than lying down.

Guidelines for the diaphragm breathing exercise

- Choose a firm, comfortable chair that allows your thighs to be parallel to the floor, hips slightly higher than knees.
- Rest feet flat on the floor, parallel to one another, shoulder-width apart.
- Ideally wear flat soled shoes or remove shoes and do the exercise in socks or bare feet.
- Sit comfortably, without leaning back or slouching forward.
- Imagine that the crown of your head is rising towards the ceiling, like a helium balloon floating effortlessly above neck and shoulders.
- Drop your arms to your side or rest your palms in your lap.
- Allow your body to lengthen between the two end points – the soles of the feet pressing down into the earth and the crown of the head lifting towards the sky. Feel your sitting bones pressing down into the chair, helping your spine to elongate between these two end points.
- Unclench your jaw, relax your neck and shoulders.
- Gently place the tip of your tongue just behind top teeth, feeling the tip of the tongue lightly touch the gums directly behind the top two front teeth.
- Look directly ahead and slightly above a distant, imaginary horizon.
- Widen your perception to take in everything around you, in a soft unfocused gaze.
- Allow your eyes to close or maintain a soft gaze, feeling the eyelids heavy and relaxed.
- Soften your facial muscles, lips just touching and teeth apart.

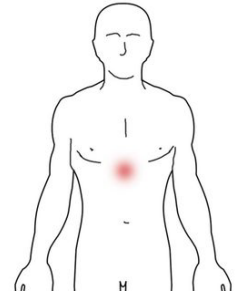
More guidelines on the next page >

¹ [Help for gastric reflux](#)

² [Eherer AJ et al 2012 Am J Gastroenterology](#)

Guidelines for the diaphragm breathing exercise (contd.)

- Breathe softly and gently in and out through the nose, avoiding any big, deep breaths. Quieten your breathing and try to make it inaudible.
- Relax, let go and allow your breath to adopt a slow, unhurried rhythm.
- Allow your breath to be effortless, feel yourself let go and be breathed.
- Let go of any tension in your shoulders or belly.
- Let your breath drop to the area just below your solar plexus.
- With each breath, imagine there is a tiny balloon inflating and deflating in the area just below the solar plexus.
- Relax all the muscles in your torso, so that you feel like your body is sinking down towards the earth as you head floats upwards.
- Become aware of any slight movement you can feel with your breath, keeping your awareness around the diaphragm and below, trying to consciously relax and quieten any movement in the shoulders and upper chest.
- You may experience an increase in saliva or warmer hands and feet when doing the exercise. These are positive signs that you are in parasympathetic (rest and digest). By contrast flushing or over-heating are an indication that you may need to back off.



Breathing awareness through the day

- Mouth closed, lips together, breathe through your nose
- Relax shoulders, soften the belly
- Breathe from the belly

Breathing should be gentle and quiet. You should breathe in and out through your nose at all times. Functional nasal breathing helps boost both carbon dioxide (CO₂) and Nitric oxide (NO) in arterial blood. Both are essential in maintaining normal blood pressure and stabilising heart rhythm. Nasal breathing may feel uncomfortable at times with a sense that you are not getting enough air. However, this helps improve CO₂ retention. As mentioned earlier, CO₂ is a natural bronchodilator and vasodilator which relaxes and opens your airways and blood vessels.

Don't force it: You can irritate and damage the delicate nasal mucosa by forcing nasal breathing. Symptoms may include increased congestion, blood in the nose or headache. Seek the advice of a Buteyko practitioner if the breathing exercises and guidelines outlined in this handout fail to relieve your blocked nose.

Breathing for sport and physical exertion

- Breathe in and out through your nose up to moderate levels of physical exertion.
- If nasal breathing becomes uncomfortable reduce the pace/intensity or stop and recover your breathing. *
- Ensure nasal breathing is comfortable and not excessive to avoid irritation of the nasal mucosa.
- Relax the belly to engage the diaphragm.
- Incorporate 3-5 minutes of diaphragm breathing into your warm down.
- Despite instruction to the contrary, breathing for all sports, including Yoga, and Pilates should always be in and out of the nostrils and as gentle as possible. You should not attempt any deep or rapid breathing exercises like Wim Hoff techniques, Yoga practises like Kapala Bhatti or Ujjayi breath at this stage in your breathing retraining.

* Nasal breathing should never be forced. It may be necessary to resort to mouth breathing for short intervals during competitive and team sports where it might be difficult to regulate pace and intensity. Maintaining comfortable nasal breathing when exercising virtually eliminates exercise induced asthma (EIA).

Other Points

- Do not eat big meals late at night as this will affect your breathing and may contribute to symptoms including nasal congestion, night-time cough, asthma, snoring, sleep apnoea and insomnia.
- Avoid all dairy, except butter, to reduce mucous and help keep nasal passages clear.
- Refined carbohydrates, including foods and drinks containing white flour and sugar should be reduced or avoided completely as they can stimulate breathing and aggravate asthma and nasal congestion.
- Digital sundown: no screens in the bedroom and no screen time, apart from TV, less than 1 hour before bed.
- To help reduce evening breathing volume you can raise the head by placing a folded blanket or a pillow between the mattress and the bed base at the head end of the bed. This avoids over-extending the neck as would happen if you were using 2 pillows. Sleeping on the left side helps reduce breathing volume, optimises circulation and eases digestion, minimising the possibility of night-time reflux.

Posture and breathing

The following habits can restrict the diaphragm and disrupt breathing. Hands on hips, brace position, sitting on hands, hunching shoulders and overextending the chin when at the computer, leaning on one leg when standing (contrapposto), arms extended overhead bracing neck, hunched back and text neck when using mobile. Being aware of these poor postural habits and correcting them will help free up your diaphragm and stabilise the breathing pattern.

About the Buteyko Breathing Course

The course includes six sessions in total: four 90-minute sessions in the first week of the programme, one group session the following week, and one individual session at approximately 6 weeks. The course fee is \$795 (including GST). An early bird rate of \$750 is available if paid 1 week before the course. A discounted course fee of \$590 is offered to additional family members enrolled on the same course. The fee covers all six sessions and support as needed for six weeks from commencement of the programme. Participants also receive a course manual and access to downloads in the [client-only page](#) on our website.

A course timetable is available on our [website](#) and [bookings can be made online](#) or by contacting the clinic on 09-360 6291.

About this guide

These breathing exercises and guidelines are to help you get on track to healthy, functional breathing. They do not constitute the full Buteyko breathing re-training programme. If the suggestions in this guide are insufficient to resolve symptoms such as snoring/sleep apnoea, asthma, chronic nasal congestion, hay fever, frequent respiratory infections, chronic fatigue, cardiovascular problems, or anxiety we recommend you enrol on a Buteyko clinic breathing retraining programme.

For any questions about this guide or if you would like to know more about our programmes, please contact us on + 64-9-360 6291 or info@buteykobreathing.nz

Glenn White 9th October 2023