

## BREATHING FOR COMMUNICATORS

### BREATHING FOR COMMUNICATORS: PUBLIC SPEAKERS, TEACHERS, PERFORMERS

When carrying out breathing assessments, there are a number of symptoms that we commonly see at the clinic amongst teachers, lecturers, consultants and singers - those whose work or leisure involves a lot of talking or vocal performance.

These symptoms include the frequent need to clear the throat, chronic cough, post-nasal drip, frequent yawning or sighing, a dry and sore throat, proneness to colds and tiredness.

There is an art and science to speaking and breathing well. Any job that requires you to talk a lot during the day can cause you to over-breathe unless you are aware of what healthy breathing parameters are and practice them. If you add in any stress or illness, breathing can become even more dysfunctional and a vicious cycle begins. Once habitual it can lead to a number of symptoms such as those listed above.

As a communicator you will likely already know something about breath control and lung capacity for:

- Voice projection
- Note sustaining
- Vocal clarity
- Vocal stamina
- Vocal resonance

What you may not know is that learning to **breathe well** will not only support improvement of these attributes but can also help to:

- reduce anxiety
- support vocal health
- build stamina and reduce vocal fatigue
- reduce and even prevent tiredness or exhaustion after a performance or at the end of a day of teaching or lecturing
- protect against infection
- speed recovery



Because of the need to both sustain and alter notes and phrases with each exhale, generally breath control has been applied more rigorously by singers, however vocal instruction has typically tended to focus on lung capacity and control of the ribs and diaphragm.

There is an art and science to vocal instruction and breathing well should be a vital part of this. Whilst learning a degree of biomechanical control is important, it is also important to understand the biochemical and psychological aspects of breathing well and how this can help your role as a performer or communicator.

First you need to know how healthy your baseline breathing (normal breathing at rest) is. You can do this by booking in for a **Breathing Assessment** at the Breathe Free Clinic. More often than not, we find that clients who come to us are chronic hidden hyperventilators without realizing it.

If you are hidden hyperventilating at rest then it is highly likely this will worsen before, during and/or after talking or performing, which over time can then lead to some or all of the symptoms above and worse.

Hyperventilation has been linked to stage fright for example <sup>1</sup>. One of the reasons this occurs is described by the Bohr effect named after Christian Bohr who discovered it in 1904.

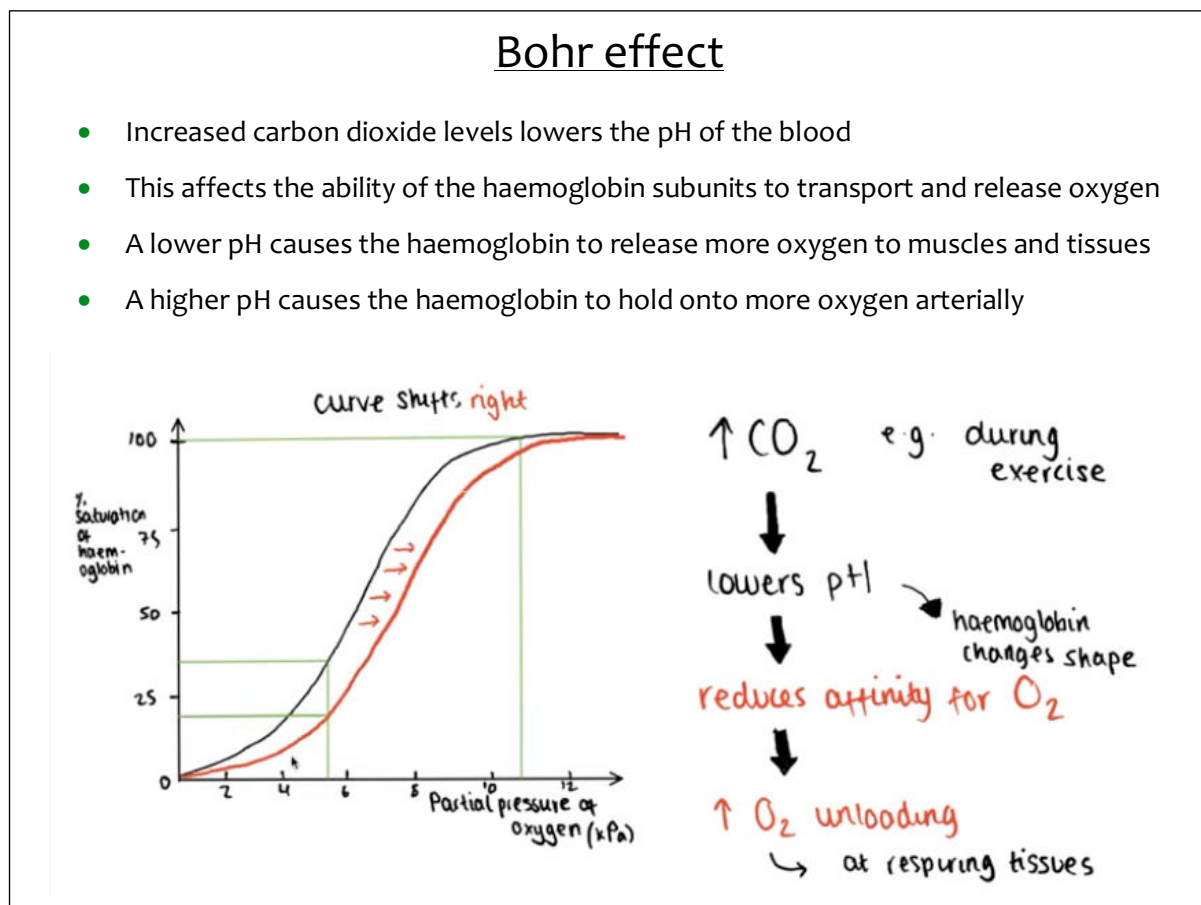


FIGURE 1: Bohr Effect Diagram from Biology with Olivia: Haemoglobin (oxygen dissociation curve, Bohr Effect, Adaptations): <https://www.youtube.com/watch?v=wgSUdxrI08Y>

In other words, breathing more does **not** lead to more oxygen being delivered to the right places in the body as you might expect.

In fact over breathing, even a little, means less oxygen will be delivered to the muscle tissues of the body and in particular the brain and heart, which need a lot of oxygen to function well.

Less oxygen to the brain can cause hypoxia and lead to anxiety and panic attacks or dizziness and memory loss (important for performers). Less oxygen to the heart can lead to cardiovascular problems like increased blood pressure.



When presenting, performing or talking a lot, breathing tends to alter – it might speed up and you may notice your heart rate ramping up. You might catch yourself holding your breath or feeling sweaty or on edge or even running out of puff. It is also common to see presenters mouth breathing when taking a breath between phrases.

Mouth breathing causes between two to three times the amount of air to be breathed in when compared with nasal breathing.

Not only does volume tend to increase but often breathing speeds up when talking in order to have breathed before the next phrase. Breathing faster and bigger volumes than is functional is called hyperventilation.

This typically encourages upper chest (thoracic dominant) breathing which further facilitates bigger volume breathing. You can see how easy it is to start to hyperventilate!

When this occurs regularly it can quickly become habitual and it is difficult to break the cycle unless you become aware and make the time to learn to breathe well. Only then can your breathing adapt efficiently to other activities such as exercise or public speaking and performance.

Mouth breathing also dries out the airways - it bypasses your natural nose filters – and as a result you may experience a dry throat or the need to constantly clear the throat as a result of mucous build up and inflammation, or post nasal drip (see [Nasal Congestion article](#)) – each a result of hidden hyperventilation.

As mentioned links have been found between stage fright and hyperventilation.

If you happen to have a bad experience presenting or performing, then the next time you may find your anxiety levels ramping up merely at the thought of the event and breathing function may well worsen even more and once again a vicious cycle gets set up.



Even if all goes well it is likely that you will feel tired afterwards and your breathing may remain dysfunctional unless you have the knowledge to correctly recover. You may notice yourself needing to sigh or yawn frequently or have a dry throat, chronic cough and even breathlessness amongst other symptoms.

Correct breathing knowledge and practice can allow you to present confidently. If you are a singer, public performer or speaker wanting to improve your stamina and performance ability or reduce your anxiety levels, Felicity from The Breathe Free Clinic would love to help you.

Buteyko breathing training helps to provide strategies to assist speech and singing for both healthy and disordered breathers whilst also helping to better manage respiratory disorders

Find out how by [booking in for Your Breathing Assessment](#).

## SINGERS

Alan Watson in his 'Oxford Handbook of Singing' <sup>2</sup> suggests that some singing techniques encourage excessive effort of the respiratory muscles especially those we call the accessory muscles, for example those that lift or elevate the chest. This is also called upper thoracic breathing or clavicular inhalation by singers.



Upper chest breathing as mentioned above can not only lead to over-breathing but also creates difficulty with the controlled exhalation needed in singing. It might seem logical to take in as much air as possible before a long sentence or singing a long phrase however this is incorrect and actually encourages a fast, large volume inhale.

As a result it is difficult to control the exhale and quality of the sound due to what is called elastic recoil - imagine a tight balloon filled to it's maximum – the pressure when released is fast and furious. A less filled balloon on the other hand will have a slower release of air because it is under less pressure.

If singers breathe out too much air too quickly they will produce a breathy tone so it is important to a degree of breath control not only for tone, phrasing and phonation but also for health. Correct vocal teaching (or vocal pedagogy) encourages between 55% to 70% maximum inflation <sup>3</sup>.

If you would like more in-depth reading on vocal pedagogy 'Vocal Technique' is book written by Julia Davids and Stephen La Tour <sup>4</sup>, which not only covers all aspects of technique but also includes vocal health and development.

## Tips to Learn Better Breath Control and Health

The best thing you can do is to get your breathing assessed correctly and retrain if necessary. There are no shortcuts. How you breathe throughout your day will effect your singing, health and confidence.

To get you started the following are some Recommendations:

- 1 **Become aware** of how you breathe **when talking** during the day.  
Extend this to your lecturing, singing or performing. Ask your friends or housemates to help you with this and ask them to let you know when you are mouth or upper chest breathing.  
Do your best to **nose breathe all the time** including when you are talking or singing.
- 2 Learn to **diaphragm breathe** – upper chest muscles should be reserved for flight or fright responses and full-on exercise.  
NOTE: Diaphragm breathing has been found helpful for people with speech disorders such as stuttering <sup>5</sup>.
- 3 Increase your tolerance for CO<sub>2</sub> by introducing Mini-Pauses – breath holds after an exhale lasting about 2 to 5 seconds. This is useful for example after a yawn or sigh or when you have cleared your throat. It can be repeated throughout the day, every time you notice you have been over-breathing but only as long as it doesn't cause dizziness.
- 4 Practice reading a passage from a book each day and consciously nose breathe throughout when you pause to breathe between phrases. Slow down speech if you need to.
- 5 Extend this to singing – at first with a simple tune like 'Happy Birthday' and then try to extend the length of phrase you can sing or speak on one breath but without needing to have a big breath afterwards.

If you play a wind instrument, practice nose breathing whenever you need to take a breath. If difficult, shorten phrases you are playing until it is possible and don't worry about how it sounds. The more you practice the longer you will be able to play before needing a breath.

At first take your time with the inhale so it does not become fast and upper thoracic dominant.



- 6 Control your exhalation by practicing an 's' sound through the teeth. This helps to reduce the flow and therefore speed of the exhale. Keep a record of how long you can exhale for whilst doing this. With time this should increase.
- 7 Imagine a candle flame in front of you or hold feather about two centimetres in front and below your nostrils. Then try to breathe so gently upon both inhale and exhale that the candle flame barely flickers or feather is hardly ruffled. Repeat this whilst humming or singing – slow down your phrasing until you start to improve and can do this with a relaxed and controlled exhalation.

- 8 If you are a singer or performer, use comfortable breath volumes ie breathe only as much for singing as you do for speaking normally – it's all you need <sup>6</sup>.



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- 2 Watson, Alan HD: "Breathing in Singing": *The Oxford Handbook of Singing* 2014
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- 4 Davids, Julia and Stephen La Tour. 'Vocal Tehcniqe: A Guide to Classical and Contemporary Styles for Conductors, Teachers and Singers' Waveland Press 2<sup>nd</sup> Edit: 2021
- 5 Conelea, Christine A, Kevin A. Rice and Douglas W. Woods: 'Regulated breathing as a treatment for stuttering: A review of empirical evedence' *The Journal of Speech and Language Pathology – Applied Behaviour Analysis* 1 no. 2 (2006)
- 6 Golan, Hadas Speech Language Pathologist and Buteyko Practitioner, Boston Medical Center, USA: Professional development lecture: Oct 2019

