

# Just BREATHE

*If breathing is instinctual why do so many of us get it wrong?  
And how is this affecting our health?*

*By Karyn Henger*

Breathing - it's something we do every day from the moment we're born until the day we die. Most of the time we're not even aware of the mechanics, and that's a good thing - imagine having to constantly remind yourself to inhale and exhale. But despite this function being so natural and instinctual (babies and young children do it perfectly), one in 10 of us, at some point in our lives, forms bad breathing habits that affect our health detrimentally - raising anxiety and blood pressure levels, causing chest pain, creating feelings of dizziness or foggy headedness, a racing heart and general feelings of being unwell. And breathing experts are increasingly concerned about teenagers and people who spend a lot of time on screens.

There are several factors that contribute to our breathing going haywire. Physical drivers include respiratory issues such as asthma, lung disease or Chronic Obstructive Pulmonary Disease (COPD). You

can become a 'bad breather' if you're chronically ill or in chronic pain because it's natural for people to breathe away from pain. If you're an allergy sufferer or frequently have a blocked nose you're likely to develop bad breathing habits, because you breathe through your mouth instead of your nose.

Hormonal fluctuations can affect your breathing - women are likely to breathe faster when they're menstruating, for example.

When you're low in iron your breathing rate increases because you don't have as much carrying capacity in your blood for oxygen.

Stress and anxiety disrupts our breathing, making disordered breathing very much a condition of the 'modern day'.

"It's really interesting that you're writing this article," says Glenn White, director of the Buteyko Breathing Clinic in Auckland, which offers an immersive breathing training programme, "because it just seems like more and more people are asking about it.

When I first started my clinic back in 2001, people would contact me and say, 'I've got problems with my asthma or my snoring or my sleep apnoea or migraine headaches,' but I get a lot of referrals now from people who just say, 'I need to sort out my breathing.'"

White, who used to suffer from terrible asthma but has been symptom-free since taking up Buteyko Breathing 16 years ago, says medical studies show that people today are breathing at almost double the rate of our great grandparents.

Why? "It's the stresses of modern life," says White. "We know that people were very stressed during the Second World War and the Great Depression but from medical records we can see that they were not responding to stress in the same way that we respond to stress today. We think that people are spending more time in the sympathetic nervous system mode (our 'fight or flight' mode, in which our breathing is generally shallower and faster). Modern life is faster ▶

## THE BREAKDOWN

*Breathing Works Clinic director Scott Peirce explains exactly what happens physiologically when we over-breathe:*

"When we breathe too fast this brings our oxygen levels up high but then we reach a point where we can't take on any more oxygen and start to push our CO<sub>2</sub> levels down to a low level. That's okay for short periods of time but if you sustain that for a long period you might start to change your pH levels and then your arteries will start to constrict to conserve CO<sub>2</sub>.

In a really acute attack that happens over a short period of time you might start feeling anxious, foggy headed and dizzy because the blood flow to your brain has decreased slightly.

The longer-term effect is that you put yourself into a slightly unwell zone. We call this 'hyperventilation syndrome' and you may feel some or any combination of these symptoms: chest pain or chest tightness, air hunger, feeling tense, blurred vision, dizzy spells, shortness of breath, coldness in your peripheries, your heart feels like it's racing, you may feel very anxious as the outer layer of your brain, which is where all the common sense decision making occurs, starts to get starved of its supply of oxygen-rich blood. Your limbic system takes control of your brain and can produce pretty intense feelings of anxiety and fear."

paced, there's more technology, we're more sedentary, there's more overeating, and all of these things are contributing and impacting on people's breathing patterns. It is a true pandemic, it really is."

Respiratory physiotherapist and partner at Breathing Works Clinic, Auckland, Scott Peirce, is particularly concerned about teenagers and people who spend a lot of time on screens, because when we sit in front of a screen and begin typing (even when we pretend to - Peirce had me try this) many of us hold our breath, meaning we regard our computers as 'important', whether the activities we use them for are stressful or not.

"So we treat our computers like a stress event and turn on our sympathetic nervous system, spending a good part of every day not breathing properly," explains Peirce. Screen users also hunch over, constricting their diaphragm and making it even more difficult to breathe correctly.

Whether the reasons behind disordered breathing are physical or other - Peirce and White receive referrals from doctors and specialists in cardiology, rheumatology and neurology, as well as from psychologists, physiotherapists and even dentists (there is a correlation between mouth breathing and dental problems) - all breathing experts work on the same principle: the key is to slow your breathing down and create a habit of breathing from your diaphragm.

To get an idea of how you're breathing, lie on your back with your knees bent and your feet flat on the floor. Place one hand on your belly and the other on your chest, then tune in to which hand is moving the most while you breathe. The hand that's on your belly should be the one that's rising

**SIGNS YOU MAY NOT BE BREATHING PROPERLY:**  
*Mouth breathing, a dry, nagging cough, sighing and/or yawning a lot.*

and falling the most, but for many of us the action is happening in our chest. Peirce suggests getting a family member or friend to watch you because "people are notoriously good at getting it wrong".

Peirce and White have found ways to measure clients' breathing - Peirce by using an ultrasound machine and White with a device called a captometre - so that they can show clients what their breathing looks like as waves on a graph. From there they can train people to change short, choppy waves into long, lazy rolls.

The ideal number of breaths to take in a minute is six to eight, says yoga teacher, naturopath and director of Golden Yogi studio, Erin O'Hara, but most of us take between 16 and 25.

O'Hara teaches a style of yoga

called Kumbalini, in which breathing is one of the cornerstones. "There are lots of different types of patterns of breathing but the most important is breathing using the diaphragm, and you notice that when people are stressed and anxious, generally their shoulders are a bit higher and when they take a breath in, their shoulders go up and their belly goes in."

O'Hara likes to have her clients imagine that when they're inhaling they're "filling the lungs like balloons". She instructs, "Breathe into the belly first and then the chest, up toward the collar bones, then let go through the top of the chest first and then the belly draws down to the ground. By lying on your back you're a lot more aware of this expansion and you want to expand in an outward direction,

rather than upwards towards your shoulders."

Once you get the hang of breathing from your diaphragm you can start slowing it down. O'Hara suggests inhaling and exhaling to a count of five for each. "Generally, people rush it at the start and then they're like, 'Oh no, I've got to hold now'. It's about learning how to use the elasticity of the lungs, getting that expansion and then letting it go in a really controlled way."

All of our experts stress the importance of practicing your breathing technique for a few minutes every day. "We're not meant to be thinking about it all the time," Peirce says. "But it's useful to check in a few times a day and if you find you're shallow breathing stop, drop your shoulders and focus on nose-belly breathing."

There are also measures you can take to "operate in a lower gear", our experts advise. Regular exercise is hugely beneficial, as is yoga and meditation. Running and swimming, in particular, can improve your breathing because they cause you to breathe more deeply and rhythmically. At the end of the day do something to "let go of your day" and follow a regular and relaxing bedtime routine.

While breathing techniques alone are not recognised as a 'cure' for the conditions we've touched on in this story, "when it's bolted on to your

medication it can help to improve your condition", says Peirce.

Integrative doctor Dr Frances Pitsilis estimates that 80 per cent of her patients with chronic illness or pain also suffer from disordered breathing. "Some of them will get better once we get control over their issues and they'll calm down and their breathing won't be an issue any more. But others need a referral to a breathing clinic. A lot of patients don't know they're doing it and I do need to convince them that it really is valuable to get some breathing therapy.

"It's important that you have a doctor exclude other conditions first. But you do need to ask the question, 'Could it be my breathing doctor?' Commonly, doctors don't think of breathing as a cause of what can sometimes be quite serious symptoms."

Says Peirce, "I had a client a few weeks ago who came in with his camera and wanted a photo with me. This was someone who had been through a cardiologist, a rheumatologist, a neurologist. He'd had symptoms for 10 years and had finally come to me through a referral from a GP. I wouldn't say he's had a 100 per cent recovery but he's had 90 per cent.

"For some people it can be profoundly life changing. And at the very least it's not going to hurt to improve your breathing." ❖

## USEFUL BREATHS TO KNOW

**For children, to let go of their worries:** Take a deep breath in through the nose then cup your hands together and breathe all of the worries out through your mouth into your hands. **When you're angry, to cool you down:** Make a loop with your tongue and breathe in through the loop. If you can't loop your tongue just breathe over your tongue, then out through your nose. When you make that breath your body goes cold. It's known by yogis as 'sisterly paniama'.

**To unblock your nose:** Breathe in and out through nose (or pursed lips if nose completely blocked). Hold on 'out' breath for as long as is comfortable then gradually resume very gentle breathing. It may help to pinch your nose and nod your head a few times. Keep your mouth closed. (buteykobreathing.nz)

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