



just
breathe

Breathe in, breathe out. Simple, right? OHbaby! physiotherapist Renee Vincent explains how better breathing can improve your life.

We all recognise that breathing is a vital function, but many of us do not realise just how important it is to breathe well. It is easy to take our breathing for granted – we've literally been doing it since the day we were born. But when we don't breathe with an optimal pattern, we become vulnerable to uncomfortable physical and mental symptoms. To quote breathing expert Tania Clifton-Smith from *Breathing Works*, how we breathe affects "the way we feel, the way we look, the way we move, the way we function, the way we present ourselves and the way we speak".

Maintaining an optimal breathing pattern is not always easy, however, because how we breathe changes in response to physical and mental factors. Our breathing can change in response to getting a fright or running a race, for example, or we might gasp when we hear that our child is injured, or breathe in large volumes of air as we cry. These changes in our breathing pattern are okay if they are temporary and we return to our

optimal baseline pattern, but in this busy modern world where we are exposed to more information and stress than ever before, it is easy to develop poor breathing patterns without even realising.

signs of disorder

Parents are especially vulnerable to developing poor breathing patterns as they are in a particularly challenging phase of life, ie time-poor, often rushing and constantly in demand, not to mention juggling several different roles. On top of these mental demands, women go through hormonal and physical changes during pregnancy that can affect their breathing habits. Then in the postnatal period they can experience fatigue, aches and pains, and sometimes depression, all of which can influence breathing. As a result, it is not uncommon for parents to experience symptoms that can be caused by disordered breathing, such as intense fatigue, headaches, backaches, feelings of depression or anxiety, problems with the digestive system, brain fog, lowered

immunity, palpitations, excessive sweating, and sinus or jaw problems. Many people don't realise these types of symptoms can be caused by poor breathing habits. It is more likely my clients will suspect food intolerances and look into making dietary changes, for example, than realise their breathing pattern could be the culprit. While other factors, such as diet, might well need to be addressed, often by improving their breathing pattern people can experience an improvement in their symptoms.

To understand how breathing has a crucial role to play in so many modern health issues, it is helpful to understand how breathing works. Put simply, we breathe to ensure that we have the correct balance of oxygen and carbon dioxide in our body. In reality, breathing involves a complex interplay of the mechanical system – the lungs, the rib cage, the breathing and postural muscles – which allows us to inhale and exhale, and the physiology and chemistry in the body that allows our cells to receive and use oxygen, and get rid of carbon dioxide. Although it is common to focus on getting enough oxygen and taking deep breaths when we feel under pressure, retaining enough carbon dioxide in the body is also very important.

overdoing it

The most common pattern seen in clients who are not breathing well is that they are over-breathing – breathing too fast, into their upper chest (as opposed to into their belly), and in and out of the mouth instead of the nose. Over-breathing results in the body not retaining enough carbon dioxide, and the changes this causes in body chemistry and body mechanics result in the symptoms described above. This type of breathing also causes the body's primal system to activate the 'fight or flight' response, which is designed to let the body respond to danger more effectively and initiates the release of adrenalin and other chemicals.

With the 'fight or flight' response under way, the nerve cells are more easily fired, the blood is directed away from the brain and the muscles get ready to tense. A fast upper-chest breathing pattern is a stressed breathing pattern, one that is appropriate when you need to move larger volumes of air. This is helpful as a temporary response to stress, but when someone is over-breathing 24/7 it can cause them to be continuously in this state, which exhausts the body's resources and can make them unwell.

While over-breathing can initially be triggered in response to a specific factor (such as stress, pain, hormones, medications or caffeine; a medical condition like asthma, anxiety or depression; atmospheric conditions like humidity; postural habits; or an occupation or sporting activity), it can then become a habit. This leads to a person breathing as if they are saving their baby from a fire, when they are simply sitting on the couch breastfeeding or negotiating lunch options with their toddler. Conversely, breathing with a relaxed pattern stimulates the opposite part of the nervous system and helps calm the body, allowing it to digest and restore its resources more effectively.

getting it right

So how do you know if you're breathing well? You can start by doing the self-check recommended by Clifton-Smith:

In a sitting position, place one hand on your chest and the other on your abdomen (stomach). Focus on your breathing – feel the pattern and the movement and think about it for a few minutes. Are you breathing through your nose or your mouth? Which hand is moving first and most – your upper or lower? How many breaths (one breath equals both in and out) do you take in a minute?

An effective breathing pattern when we are at rest or going about our daily activities is generally one in which we breathe at 10–14 breaths per minute, in and out through our nose, low into our abdomen, slowly and rhythmically, and in small volumes. This may

surprise many readers. Don't worry if you find that this is not the pattern you seem to have because you're not alone. If you find that you have several of the symptoms that I have mentioned, and also that your pattern is taking fast breaths, high into the chest, in and out through your mouth and in large volumes, then I would recommend that you see your GP and discuss this. They can then work through what may be triggering this pattern and whether it would be helpful to refer you to a physio who is experienced in helping people restore optimal breathing patterns. The books referenced below are also excellent resources.

To achieve relaxed breathing, or what Clifton-Smith calls 'pure belly breathing', you can try the following exercise from her book *Breathe to Succeed in All Aspects of Your Life*. If you have none of the above symptoms (bar being a tired mum!), then you can use the following exercise to help get an optimal breathing pattern, or simply to relax when you're feeling like you've been over-stimulated by your day. Again, if you experience any distress or discomfort doing the exercise, stop and discuss it with your GP.

PURE BELLY BREATHING

AN EXERCISE BY TANIA CLIFTON-SMITH

- 1 In sitting position, place one hand on your chest and the other on your abdomen. Focus on your breathing. Feel the pattern and movement and think about it for a few minutes.
- 2 Breathe all the air out through your nose or mouth and then relax.
- 3 Now gently breathe in through your nose while thinking about letting your stomach rise as the air comes into your lower hand.
- 4 Feel your stomach and your lower hand drop as you breathe out through your nose.
- 5 Try a gentle pause after exhaling.
- 6 If you find this difficult, try breathing in a little lower to the bottom of your lungs, applying a firmer pressure with your lower hand to increase the resistance. The next breath will draw air into the bottom of your lungs.
- 7 Continue with this pattern, aiming for a smooth, regular rhythm, for five to ten minutes.

Breathing well takes daily practice. If you know that you have been under stress for a while, then you will need to persevere with the exercise before you notice it becoming easier to breathe well and you feel relaxed after doing it. Some people find a guided meditation easier to follow than a self-guided exercise. There are many apps available, such as Calm, and websites that provide guided breathing awareness meditations. Even with only five minutes, you can practise being mindful of your breathing.

As a parent, one of the simplest ways to take the stress down a notch is to become aware of how you are breathing and work towards breathing well. Your health and your children will thank you for looking after yourself in this simple, but essential, way. •

OHbaby! fitness expert Renée Vincent is a physiotherapist at Total Mums in Auckland and mum to an energetic five-year-old.

references and further reading

- Clifton-Smith, Tania, *Breathe to Succeed in All Aspects of Your Life*, Penguin.
- Bartley, Jim, & Clifton-Smith, Tania, *Breathing Matters: A New Zealand Guide*, Penguin.
- www.breathingworks.com