



Breathing Retraining

Breathing is a fundamental of life, and therefore surely everyone would breathe efficiently? Unfortunately the human body is quite able to cope if we are working ok, rather than at our optimum.

What happens when we breathe in?

When we breathe in, various parts of our body move to enable the air to enter our lungs. Our upper ribs lift forwards and upwards, our lower ribs lift sideways, thus broadening the lower ribcage. We also have a muscle called the diaphragm that attaches to the lowest ribs. When this contracts it increases the size of the lungs and presses down on the contents of the abdomen, which causes the abdominal wall to push forwards. When we relax the ribs move downwards again and the diaphragm relaxes, moving upwards within the thorax.

What is the best way to breathe?

If we mainly use the upper ribs when breathing we use a great deal more energy than using the lower ribs and diaphragm. It takes much more effort to lift the upper ribs and draws less air in than if the air movement occurs by diaphragm action. The ideal breathing pattern is therefore to encourage the diaphragm to work most. If you observe any trained singers, you will notice that even when they take in a deep breath their shoulders do not seem to move. The purpose of the following exercise is therefore to develop better use of the diaphragm rather than the upper ribs.

Breathing retraining –

1 Pursed lips breathing

Sit or lie comfortably and hold up a finger about 10 inches (25 cm) away from your mouth.

- Gently and slowly blow through pursed lips (as if you are blowing through a narrow straw) so that you can feel a gentle airflow onto the finger.
- When you have exhaled fully, without strain, pause for a count of one, and then inhale *through your nose*. Full exhalation creates a sense of a ‘coiled spring’, making inhalation easier.
- Without pausing to hold the breath, exhale slowly and fully, again through pursed lips as before, and pause for a count of one. Feelings of anxiety and pain should reduce with this exercise.
- Perform 30 breaths, and practice this in the morning and evening. If you feel light-headed during the exercise, stop blowing on your finger and relax. This is not unusual initially, but will improve with practice.

After some weeks of daily practice you should achieve an inhalation phase that lasts for 2 to 3 seconds, and an exhalation phase of 6 to 7 seconds without strain.

Practice this exercise more frequently if you feel anxious or when stress increases.

This exercise helps to train a slower breathing rate. By concentrating on exhalation it also slows up the rate you lose carbon dioxide and helps the brain to reset and improve the control of your breathing.

As you become more comfortable with this exercise, ensure that your shoulders do not rise as you breathe in. Try holding the chair that you are sitting to prevent your shoulders rising, or watch yourself in a mirror. This encourages your lower ribs and diaphragm to move more.





2 Abdominal breathing (You may not need to do this if the first exercise relieves your symptoms)

When you feel more comfortable about the rate of your breathing it may be helpful to focus more specifically on where your breathing happens. The aim is to encourage slower abdominal breathing, where possible through the nose. This may initially feel uncomfortable or wrong.

The exercise can be performed in any position, but you may find it easier initially to perform it while lying down. Start by lying on your back therefore, with one hand on your abdomen, allowing your body to relax for a minute or two.

Sense the movement of your abdomen. Try to take slightly deeper breaths, but do this by filling your abdomen rather than moving your chest. You will feel that the abdomen rises when you breathe in, and falls as you breathe out.

Sometimes people find that they mistakenly move in the opposite pattern. As they breathe in they suck their abdominal wall in, down towards their spine, and as they breathe out the wall is pushed out. If you find yourself doing this, relax and allow your breathing to settle to your normal rhythm. Rest for a minute or two and then try again. It may help to start by consciously pushing out your abdomen as you breathe in.

Once you have achieved the correct movement of your abdomen, try to breathe a little more deeply, trying to fill your abdomen with air. It is important also that you dwell on the out-breath.

So try counting slowly *One, two on the in-breath, and three four five on the out-breath.*

Aim to breathe about 12 times per minute. If you are breathing too fast, just relax again for a few minutes and then try again.

To help you relax, try thinking the following while you are breathing:

Lips together, jaw relaxed, breathing low and slow.

Breathing low refers to your attempt to draw air into the lower part of your body, i.e. your abdomen.

If you feel breathless while trying to perform the exercise, relax again and think about something else for a few minutes and then repeat.

It is important to practise this regularly. Aim to do it a few times every day. As you feel more comfortable that you are performing it correctly, try doing the exercise in different positions, while standing, sitting, and even walking. The eventual target is for your breathing to remain in an abdominal pattern even when you are not thinking about it.

For those who are over-breathing to the point where they are causing themselves symptoms, you should recognize a change in the level of symptoms and eventually eliminate them. For those who are merely breathing inefficiently, the outcome should be that you feel you have more energy.

Other symptoms that may occur when over-breathing: (rarely all of these)

Breathlessness at rest for no apparent reason, frequent deep sighs or yawning, chest wall tightness, palpitations, cold hands and feet, light-headedness and feeling dizzy, tingling or numbness in lips or extremities/finger-tips, headaches, blurred vision, dry throat, heartburn, regurgitation, tightness around mouth, IBS, bloating from air swallowing, achy muscles /joints or even tremors, stiffness in fingers and arms, tiredness, weakness, broken sleep, nightmares, clammy hands and **high anxiety level.**

