

If you are thinking of increasing your exercise level you should check with your doctor first, as they can advise you on appropriate activities. Try to build up your exercise level slowly and don't make too dramatic a change in one go.

What is pulmonary rehabilitation?

Pulmonary rehabilitation is a course of gentle supervised exercise and education designed to help people with your lung condition get fitter, cope with their symptoms and understand their condition better.

Evidence shows that attending a pulmonary rehabilitation course can help you manage your condition, prevent flare ups and hospital admissions, and can improve your quality of life.

Ask a member of the DAIRS team, or your GP or practice nurse to refer you.

Contact details

For further general health-related information, please ask the relevant department for an information prescription or contact:

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0300 019 8483




DAIRS Respiratory Team Bournemouth
0300 019 6122

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 Castle Lane East, Bournemouth, Dorset, BH7 7DW

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Living with a lung condition: physiotherapy techniques to manage your condition



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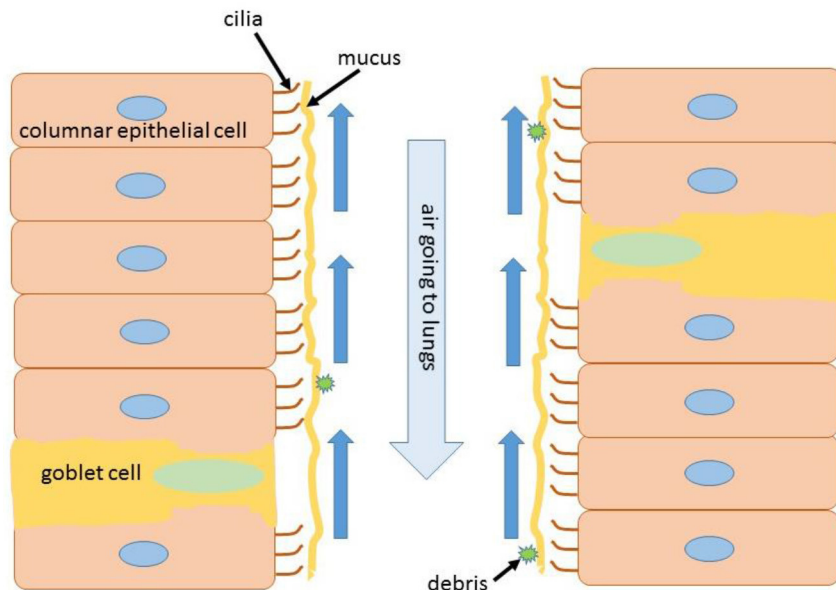
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What are the physiotherapy techniques to manage your lung condition?

- Airway clearance
- Breathlessness management
- Energy conservation and pacing
- Managing anxiety
- Relaxation techniques
- Staying active and pulmonary rehabilitation

What is airway clearance?

Many people with your lung condition have trouble clearing sputum or phlegm. Tiny hairs called 'cilia' line your airways and they 'waft' your phlegm up for you to cough out. It is a natural cleaning mechanism of the lungs.



Counting ten breaths back

- Allow yourself to feel passive and indifferent, counting each breath slowly from one to ten and then from ten to one.
- With each count, allow yourself to feel heavier and more relaxed.
- With each exhale, allow the tension to leave your body.

Shoulder shrug

- Try to raise your shoulders to your eyes.
- Hold for a count of four.
- Now drop your shoulders back to a normal position.
- Repeat three times.

Visualisation

- Find a quiet safe place.
- Sit or lie down and close your eyes.
- Imagine that you are in your favourite place.
- Imagine how it sounds, smells, feels.
- Feel the joy you normally feel when you are there.

Why is it important to stay active?

It is important for people with your lung condition to remain as active as possible. Staying active helps maintain lung health, clear lung secretions/phlegm, while improving fitness and health.

Being active also helps you feel less breathless when performing your normal daily activities and improves your sense of wellbeing.



How can relaxation strategies help?

Coughing fits and being short of breath can be very stressful, in turn stress and anxiety make you feel more short of breath. This can be a downward spiral. Because of this, many people with your lung condition find it useful to practice relaxation techniques. There are many different relaxation techniques you can use, some of which are now explained.

Muscle relaxation

- Find a comfortable lying or sitting position. Think about how you're feeling.
- Close your eyes and practice a few minutes of breathing control.
- Starting at the bottom and working up, tense the muscles of your feet, lower legs, thighs, buttocks, tummy, back, shoulders, arms, hands, neck and face for four to five seconds before relaxing each. Only tense one area at a time.
- Notice how much more relaxed your muscles feel. Stay in this position for a few minutes.
- When you're ready, open your eyes and take a few deep breaths. Let yourself become more aware of your surroundings and sit up slowly.

Quick relaxation techniques

Whole body tension

- Tense everything in your entire body and hold it as long as you can without feeling pain.
- Slowly release the tension and feel it gradually leave your body.
- Repeat three times.

With certain lung conditions your 'cilia' do not work as well. Consequently your phlegm doesn't move up your airways that easily. Every day you will need to help the phlegm move to prevent developing a chest infection.

What can I do to move the phlegm?

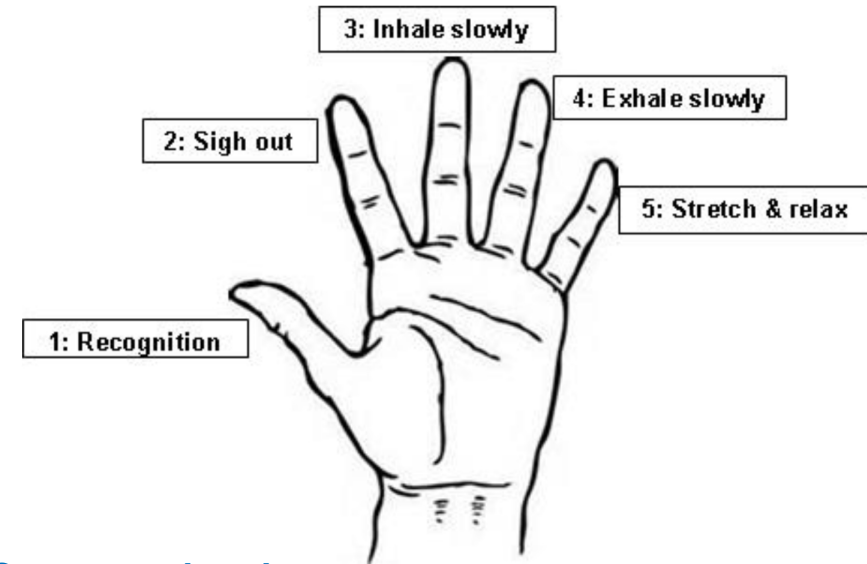
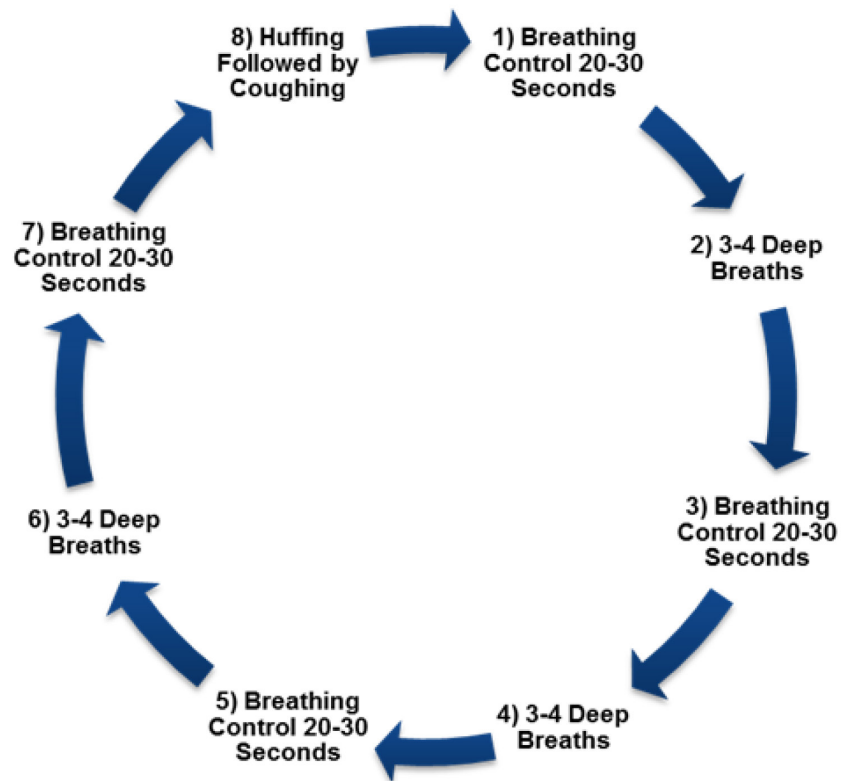
- Stay as mobile as possible - when you move, the phlegm in your lungs moves as when you sit up or walk you take bigger deeper breaths which helps to shift the phlegm.
- Stay hydrated - the more water you drink, the looser your phlegm is, making it easier to clear. Cut down on tea and coffee as this is dehydrating and aim to drink two litres of water a day unless you have been advised to restrict your fluid intake.
- Pain control - if you are in pain when you take a deep breath, make sure you stay on top of your pain relief. If it hurts when you cough, get a pillow or rolled up towel and hold it over the painful area. This is called a supported cough.
- Breathing exercises - The active cycle of breathing technique (ACBT) helps move sputum from the small airways at the bottom of your lungs to larger airways near the top where they can be cleared more easily with huffing/coughing. We will look at this in more detail now.

Active cycle of breathing technique (ACBT)

You should follow the ACBT cycle to clear your secretions.

You can watch a 'You tube' video of ACBT by NHS University Hospitals Plymouth's physiotherapy team by accessing this web address:

www.youtube.com/watch?v=XvorhwGZGm8



Step one: thumb

- **Recognition** - Recognise your signs of panic early and take the following steps to regain control.

Step two: index finger

- Sigh out - as you do, relax your shoulders and arms.

Step three: middle finger

- Breathe in slowly, focusing on filling your lungs with air.

Step four: fourth finger

- Breathe out slowly until your breath comes to its natural end.

Step five: little finger

- Stretch and relax your hands, as a reminder that you can regain control.

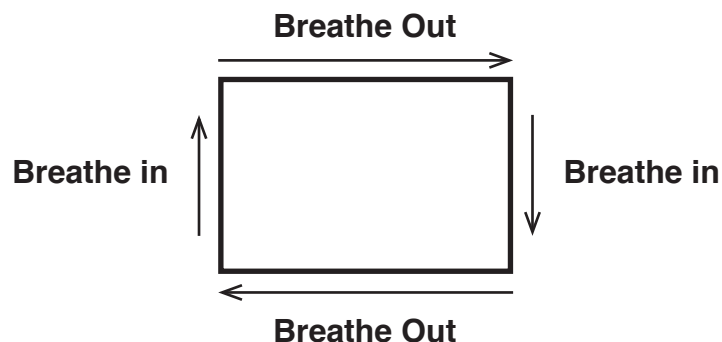
You may need to repeat these steps. Once the panic settles, you should do your breathing control.

breathing and can't get somewhere private.

Rectangular breathing

Rectangular breathing is a strategy to help with breathlessness, anxiety and panic. It can be used in combination with either pursed lip breathing or breathing control. Look at something that is a rectangle shape, for example, the TV screen, a window or a door. Breathe in gently along the short edge and as you breathe out follow the long edge of the shape with your eyes. This should help you to take a longer breath out which can help to control and slow down your breathing, reducing the sensation of breathlessness. Repeat this cycle as often as you feel necessary. For some lung conditions, such as IPF, it may be more comfortable to follow a square shape.

See the diagram below.



The calming hand

This strategy will help you control feelings of panic and loss of control. The calming hand can be used to remind you how to cope when you experience these feelings.

There are five steps (fingers) to understanding the calming hand:

Breathing control (also called relaxed abdominal/tummy breathing):

- Rest your hand on your tummy, keeping your shoulders and upper chest relaxed. Allow your hand to rise gently as you breathe in.
- Sigh out gently and ensure your shoulders remain relaxed.

Thoracic expansion exercises (deep breaths):

- Take a slow deep breath in through your nose (if able), trying to keep your shoulders and neck relaxed.
- At the end of the breath in, try and hold it in for one second and sniff in a little more air. If this is difficult and you start to cough, do not worry about doing this.
- Let the air out gently through your mouth.

Forced expiratory technique ('huff'):

- Let the air out gently through your mouth.
- First do a small long huff - take a normal breath in, then with an open mouth, huff from the back of your throat fairly strongly, as if misting a pair of glasses, letting the air out until your lungs feel fairly empty. This will move secretions lower down in your airways.
- Then repeat with a big short huff - taking a deep breath in to start and short quick huff out, only a second long. This will move secretions high up in the airways.
- Do not force the huffs if they cause chest tightness or wheezing.
- Do these two huffs then follow with a cough to clear any secretions brought into your throat.

Do not do lots of repeated huffing or coughing. If there are secretions after the cough at the end, repeat the cycle again. Continue doing so until your cough is dry. If your cough remains productive for a long period of time when doing ACBT, then stop when you feel you have done enough and repeat it again later.

You cannot overdose on your breathing exercises. If you are in hospital you should do ACBT every one to two hours. At home when you are well, do at least twice a day, morning and evening. With a chest infection do it at least four times a day. You can do ACBT five minutes post Salbutamol inhaler or 10-15 minutes post nebuliser.

Airway clearance and continence

The coughing associated with your lung condition puts stress on the pelvic floor. Your pelvic floor muscles are the muscles that help you control your bladder and bowel. Over time this repeated stress can cause leakage of urine, wind or faeces. Pelvic floor exercises help you to keep your pelvic floor strong and enable you to perform 'the knack' (see below), therefore reducing incontinence issues.

How to contract your pelvic floor:

- Gently draw up your front and back passages as if you were trying to stop yourself passing wind or stopping your flow of urine mid-stream.
- It should feel like a squeeze and lift.
- Try not to hold your breath or tense your stomach, legs or buttocks at the same time.

Pacing

This involves looking at the speed you do your tasks. Always:

- Do your activities at a comfortable pace.
- Make sure to include rest and leisure time in your timetable.
- Be flexible with your routine. If you have planned to do something strenuous and you feel particularly breathless, do the task another time.

Positioning

This involves looking at the position you are in when you perform the task and the position of the objects needed to do tasks. You should:

- Try to maintain good sitting, standing, walking and lying postures.
- Consider sitting to perform tasks if you need to.
- Consider using long handled equipment (such as a mop instead of a rag to wipe up floor spills) so you don't have to bend or stretch for long periods.
- Position the objects you need most between hip and shoulder height or in your most easily accessible cupboards and drawers or surfaces.

What is anxiety management?

When you get breathless it makes you feel anxious and when you get anxious you feel breathless. There are some strategies which can help to control this. They aren't long term solutions for panic attacks, but will help you to calm down when necessary. You can also use them in public if you need to recover your

What is energy conservation?

Conserving your energy will help you to feel less tired and as a result make you less breathless. Follow the 'Four Ps' to help you conserve energy.

The 'Four Ps'

Prioritisation

This involves reviewing your daily activities i.e. washing, shopping. You should:

- Check to see if it is realistic for you to do these tasks.
- Cut out anything that isn't necessary.
- Ask for help if necessary.

Planning

This involves looking at when and how you do the tasks. You should:

- Use a timetable to plan when you do your tasks, spacing them throughout the day and allowing time to complete them without rushing.
- Avoid unnecessarily repeating your movements, e.g. do all your upstairs tasks when upstairs so that you don't have to use the stairs repeatedly.
- Do your difficult tasks at the time of day you feel at your best.
- Consider investing in energy saving equipment such as a dish washer.
- Consider having more than one of the items you use most frequently. A downstairs and upstairs vacuum cleaner, telephone or glasses will help you avoid carrying extra loads up and down the stairs.

Slow exercise:

- Contract your pelvic floor and hold it for as long as you can, up to ten seconds.
- Build up to doing ten repetitions of this.

Fast exercise:

- Quickly contract and relax your pelvic floor, up to ten times.

You should aim to do both slow and fast exercises three times a day; they only take approximately two minutes to do. You can do pelvic floor exercises lying, sitting, or even standing at a bus stop.

The knack:

- This means contracting and holding your pelvic floor muscles prior to and during anything strenuous.
- You should try to do this prior to and during coughing and sneezing as this can help reduce leakage.

If you suffer with incontinence you may want to ask your doctor to refer you to a continence specialist. The NHS has also developed an app called 'Squeezy' which provides exercises and reminders. You can download this at a small charge in your mobile's app store.

What is breathlessness management?

Many people with your lung condition can feel breathless, even when doing simple daily tasks. This can be frightening and debilitating, however, there is a checklist of simple things that you can do to help manage the breathlessness and improve your quality of life. Some exercises are better suited to some than others and can depend on the lung condition you have.

- In obstructive lung disease, such as Chronic Obstructive Pulmonary Disease (COPD) or asthma, it takes longer to empty your lungs. The airflow is slower because the disease makes your airways narrower or lungs less elastic. Because breathing out is slower, you may need to breathe in again before you have emptied your lungs. This makes breathing uncomfortable.
- In restrictive conditions you cannot fill your lungs with air because your lungs are restricted from fully expanding. This happens when the lungs themselves are stiff or because there is a problem with the chest wall or breathing muscles. The most common restrictive lung conditions are interstitial lung disease, such as IPF, others are obesity or a curved spine.
- Some people find it difficult to breathe because they have lots of phlegm in their airways, such as bronchiectasis. If you have lots of sputum, clearing your sputum may help you feel less out of breath.

Breathing when walking (paced breathing)

People with your lung condition tend to have more difficulty breathing out than in. This can often make them breathless when walking. When walking on the flat, try breathing out for two steps and in for one step, or out for three and in for two, depending on the most suitable rate for you. When walking on slopes or upstairs remember not to hold your breath. Try to breathe rhythmically in time with your steps.

Blow as you go

This helps you to perform difficult tasks such as standing up, lifting heavy objects or reaching for objects. To do this, breathe in before you make the effort and then blow out as you make the effort, or 'blow as you go'. Don't forget to breathe in again before you repeat the task. You could combine this with pursed lip breathing.

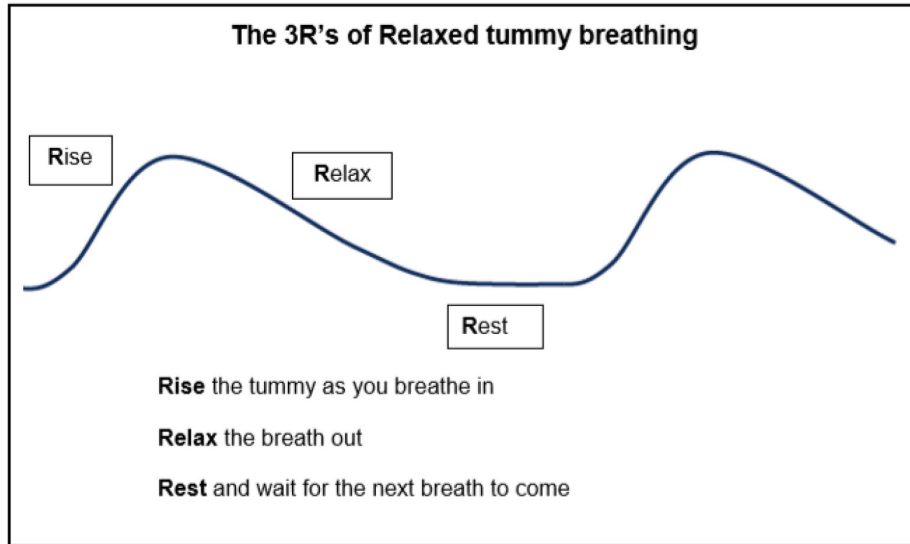
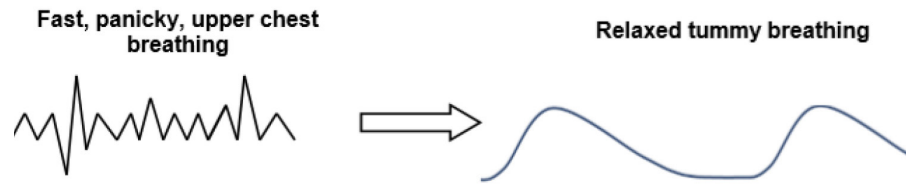
Fan therapy

When breathless you may instinctively go to an open door or window to 'get some fresh air'. In a similar way, air from a handheld fan can reduce the feeling of breathlessness. Research has shown that cooling the face with a fan six inches away from your face is effective at reducing breathlessness. It is thought that this sends a message to the brain which reduces the feeling of breathlessness. Use it until you feel your breathing ease. You can perform breathing control at the same time.



Walking aids

Some people with your lung condition may find it easier to breathe when walking with a frame or stick. If you would like to be assessed for a walking aid you should discuss it with your physiotherapist. Your physiotherapist will be able to advise you whether you would benefit.



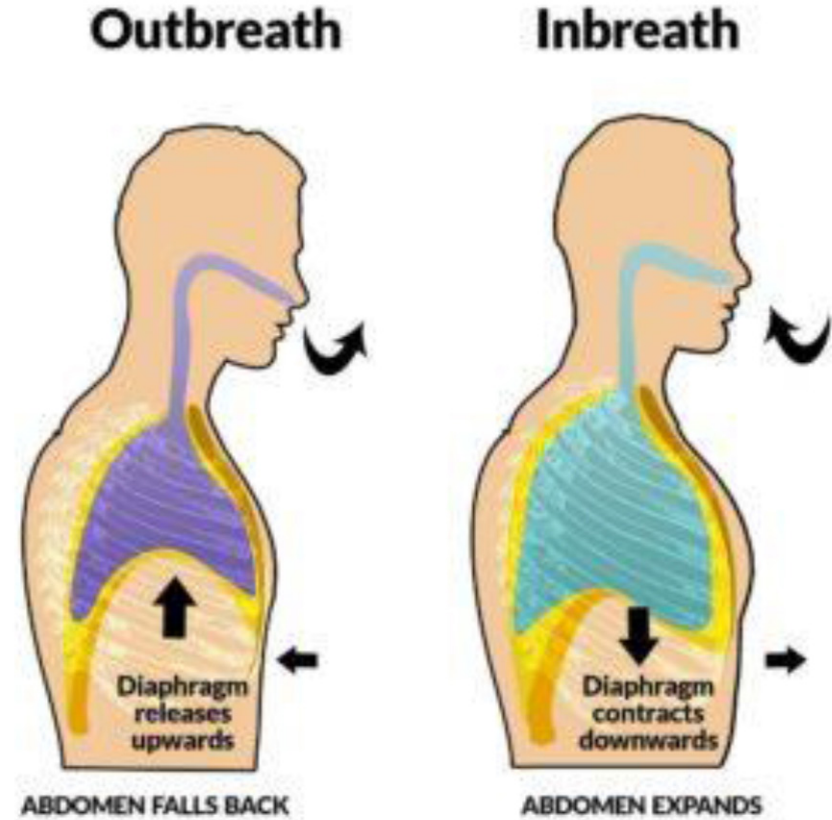
Pursed lip breathing

This helps you breathe out more easily and in turn helps make you feel less breathless. To do this:

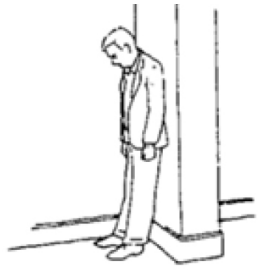
- Breathe in steadily and then blow out through pursed lips.
- Try to blow out as long as comfortable, as if you were blowing out a large number of candles on a cake.

Positions to relieve breathlessness

The diaphragm is one of the main breathing muscles. Putting yourself in certain positions makes the diaphragm work more efficiently, makes it easier to breathe and helps reduce breathlessness.



The following are some positions that you might like to try when feeling short of breath. Use the positions that work best for you.



Good for most people. Lean back against a wall with your feet slightly away from it. Relax hands by your side.



Good for obstructive conditions. Standing leaning forward against a support.



Good for obstructive conditions. Sitting at a table, lean forward with your head and chest supported.



Good for restrictive conditions. Sitting back, relax your arms.



Good for obstructive conditions. Sitting leaning forward, relax your arms on your thighs.



Good for restrictive conditions. Lie on your side with your head up and your body rolled slightly forward. Put a pillow between your knees for comfort.

Breathing exercises to manage breathlessness

Breathing control (relaxed tummy breathing)

This is a way of calming your breathing when feeling short of breath and breathing rapidly. Try not to panic. To perform breathing control:

- Get yourself in a position to relieve breathlessness.
- Try to gain control over your breathing by concentrating on your breaths, try to breathe in slowly (through your nose if possible) and out, either through your nose or through pursed lips (see pursed lip breathing on the next page).
- Try to relax any areas of your body that aren't keeping you in position or helping you breathe.
- Gradually try to make your breathing slower.
- Focus on relaxing.

You can practice breathing control at times when you are not breathless:

- Make sure you are in a comfortable position, with your head and back supported and your shoulders and upper chest relaxed.
- Place one hand on your tummy.
- Feel the tummy rise and expand as you breathe in and relax down as you breathe out.
- Breathe gently when practicing - there should only be a slight movement of your tummy at rest.
- Follow 'The 3R's' of relaxed tummy breathing on the next page.