

PHYSIOTHERAPY DEPARTMENT

Breathing and general exercise for the
long term respiratory patient



Royal Free Hampstead
NHS Trust



This leaflet gives you general advice about managing your breathing. It also describes chest-clearing techniques, and a gentle home exercise program for people with a long term respiratory condition.

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A. Managing your breathing

1. Breathing control

This exercise is to establish an easy normal breathing pattern.

- i. Sit in a chair and ensure you are well supported. Place your hands on your tummy.
- ii. Breathe in through your nose, feeling your tummy expand slightly as you do so. Relax your upper chest, shoulders and arms.
- iii. Repeat to establish a calm, gentle breathing pattern.

Use at any time of the day, but especially if your breathing feels rapid or difficult.

2. Breathing control when walking

- It is normal for your rate of breathing to increase when you are exercising. By using the breathing control technique described above it is possible to keep your breathing under control and reduce feelings of panic.
- Breathe in and out of your mouth if necessary.
- Try pacing your breathing with walking – so breathe in for 2 steps and out for 2 steps; or breathe in for 1 step and out for 2 steps. Experiment until you find a rhythm that suits you.

3. Managing shortness of breath

- At times you may feel very short of breath. By using the breathing control technique described above with some of the positions illustrated below, you may find that you can regain control of your breathing.
- Some people find that a fan is also very useful to relieve symptoms.

- i. Forward lean sitting. Sit forwards in a chair, with your forearms resting on a table or your thighs. **(fig 1)**
- ii. Forward lean standing. Stand away from a wall, rest your hands on a window sill or ledge at waist height, leaning forward from the hips. **(fig 2)**
- iii. Backward lean standing. Stand with your feet about 12 inches away from a wall. Lean your shoulders against the wall, so that your back rests flat, bending at the hips. **(fig 3)**



fig 1



fig 2

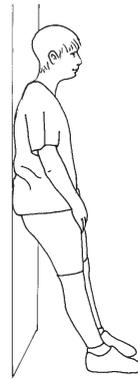


fig 3

B. Clearing secretions

From time to time, your lungs may produce too much secretion. To help prevent chest infections, it is vital to clear this before it accumulates. A respiratory physiotherapist can give specific advice, but the following combination of breathing exercises can help to clear secretions:

- **Breathing control** (as page 1).
- **Lower thoracic expansion exercises.** These are larger breaths where you should feel your tummy moving out and your ribs expanding. Breathe in through your nose, as slowly and deeply as you can manage. Breathe out through your mouth gently, until all the air is exhaled.

- **Forced expiration technique.** This is sometimes called a “huff” – it is similar to steaming up a mirror or doing a peak flow measurement. Take a medium breath in, then force the air out through an open mouth, using your chest and tummy muscles, until all the air is exhaled.
- **Cough.** Take a medium breath in, then give a strong cough to clear secretions. Try to spit out any secretions rather than swallowing them.

Try using the above techniques in a cycle as follows:

- i. breathing control;
- ii. three lower thoracic expansions;
- iii. breathing control;
- iv. two huffs;
- v. breathing control;
- vi. and finally a cough.

Repeat for about 10 to 15 minutes, several times a day when your chest is producing too much secretion. Combine the elements above into a cycle that works for you. Remember to use lots of breathing control to minimize feelings of breathlessness.

C. General exercise

Improving your overall fitness will improve your breathing by increasing your stamina and exercise tolerance. The result of this is that you should be able to do more on a day-to-day basis.

You will need to exercise on a regular basis, starting very gently, increasing gradually as the weeks go by. Try to do some exercise every day. The easiest and simplest program for most people is to use walking, gradually increasing the time and distance.

Before you begin your exercise programme, remember:

- Ensure you are wearing flat lace-up or buckled shoes.
- Do not exercise if you are feeling unwell
- Do not strain or push yourself into feeling discomfort or pain
- Ensure the area you are going to exercise in is safe – eg. there are no loose rugs or electricity cables lying on the floor
- Remember to use your breathing control whilst exercising

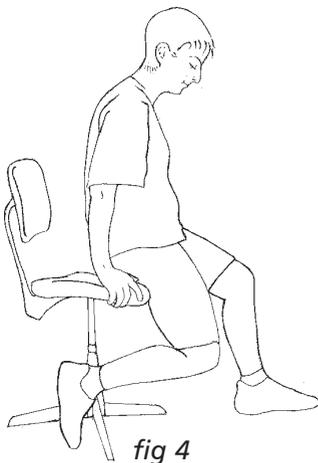
Warm-up stretches

Front of thigh (quadriceps)

Sit on a firm chair without armrests. Ensure your bottom is placed well back on the chair. Take one foot back under the chair, as far as it will go placing your toes on the ground. Hold this position for 30 seconds then relax your leg, repeat 10 times and swap legs. **(fig 4)**

Back of thigh (hamstrings)

Sit on a firm chair without arm rests. Place your bottom well back in the chair, keep your back straight. Straighten one knee to raise one foot off the floor ensure that your toes are pointing to the ceiling. When you feel a pull at the back of your knee stop the stretch. Repeat 10 times and change legs.**(fig 5)**



Upper body

Sit on a firm chair without arm rests. Ensure your bottom is placed well back in the chair and your back is straight. Take a small object e.g. an apple or an orange in your right hand, take your arm out to the side and over your head. Pass the object in to your left hand, bring your left hand back down to your side. Repeat 5 times then continue the exercise starting it with the left hand. **(fig 6)**

Walking programme

Start by walking indoors. As you improve, try to have a walk outside. If you have not been out for sometime try to get a friend to go with you the first few times. If you are unsure continue to walk indoors.

Weeks 1 & 2

Find a flat space indoors where you can walk up and down, or in a circle, (if walking in a circle take care to change direction so that you don't get dizzy). Spend 2 minutes walking slowly up and down. Spend the next 2 minutes walking quickly, then spend the final 2 minutes slowing down again. Do this every day.

Weeks 3 & 4

Continue as above, but increase the middle section of quicker walking to 4 minutes. Do this every day.

Weeks 5 & 6

Gradually increase the period of quicker walking until you are able to manage 10 minutes, spend 3 minutes slowing down. The whole walk should now be taking 15 minutes.

Continue with the walking program every day. If possible, extend the distance covered and time spent walking. If the program is too difficult take it more gently, spending several weeks at each stage until you can manage more. You should notice an improvement whatever your original mobility level.

If you are uncertain about anything, please contact your physiotherapist.

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