Breathing Exercises and Coughing

You and Your Lungs

The purpose of your lungs is to move oxygen from the air you breathe into your bloodstream so it can be used by your body.

Air enters your lungs through your mouth or nose and travels down your windpipe (trachea) into increasingly smaller airways. The structure of the airway tubes is similar to a tree trunk dividing into smaller and smaller branches. The smallest tube, which is about the thickness of a strand of hair, ends in bunches of tiny air sacs (alveoli). Each air sac is covered with very fine blood vessels (capillaries).

When you breathe in air, the air moves through the airways down to the air sacs. The oxygen passes from the air sacs into the bloodstream and is carried to the rest of the body.

Pursed Lip Breathing

Pursed lip breathing is a technique that helps to control your breathing rate and improve your shortness of breath.

Practice

1. Breath in slowly through your nose.

2. Pause.

3. As you breathe out, part your lips just enough to let a steady stream of air out.
4. Your breath out should be twice as long as your breath in. Keep your lips pursed.

5. Do not try to force the air out. Do not let your cheeks relax or ‘balloon out’

**Diaphragmatic Breathing (optional)**

The diaphragm is made up of two large, dome-shaped muscles located just below the lungs. When they are tightened (contracted), there is more room in the chest cavity for your lungs to expand. The diaphragm also pull the lungs downward and helps draw air into the lungs.

**Practice**

1. In a comfortable position, place one hand on your abdomen above your belly button. Breathe in slowly through your nose.

2. Feel your belly rise slowly as you breathe in. Let the air out through pursed lips (see above). The upper part of your chest should stay relaxed.

3. Once you are able to do this type of breathing both sitting and lying, try using it while standing and walking.
Coughing and Sputum Clearance

Cough and sputum are two other symptoms of your disease. Coughing is important because it helps remove sputum from your lungs. When sputum is removed you can breathe easier.

It is helpful to cough early in the day to remove the sputum that has built up during the night. It is also helpful to cough well, about a half an hour before lunch and supper; it may help make your meal more enjoyable. Before going out, cough to clear any sputum. You will be less likely to cough while you are out.

There are also devices that may be suitable for you. These devices help in the movement of sputum. Consult a health care professional about the use of these.

Controlled Cough Technique

Practice

1. Sit comfortably with your feet resting firmly on the floor, and lean forward slightly.
2. Take three to four deep diaphragmatic breaths before coughing.
3. Take a deep breath, hold your breath for three seconds, tighten your abdominal muscles and cough twice. The first cough will loosen your sputum. The second cough will move the sputum high in your throat.
4. Spit it into a piece of tissue and check the color. If it is a yellow, green or red in colour, talk to your doctor. Throw the tissue away.
5. Take a break and repeat once or twice if you do not cough up any sputum.

Relaxation Positions to Reduce Shortness of Breath

When breathing is difficult, use one of these positions to help you relax and regain control of your breathing:

Practice

Lying
- Lie on your side, leaning on three or four pillows.
- Keep your head up and your shoulder supported.

Sitting (I)
- Sit at a table, lean forward and rest your arms on the table.
- Rest your head on a pillow.
Sitting (2) • Sit in a chair, lean forward and rest your forearms on your thighs.

Standing (I) • When you are not able to sit down, lean forward and support your arms on an object near shoulder level (e.g., car roof, mantle, filing cabinet)
  • Rest your head on your forearms.

Standing (2) • Lean your back against a wall.
  • Relax your shoulders and let your arms hang loosely.

Coping with being Short of Breath
1. Find a relaxation position that is most comfortable for you. Do not worry about how fast you are breathing.
2. Breathe in through your mouth and out through your mouth.
3. Begin to **lengthen** the time you breathe out.
4. Try to breathe in through your mouth and out through **pursed lips**.
5. Breathe in through your nose and out through pursed lips.
6. Start **diaphragmatic breathing** and continue to breathe out through pursed lips.
7. Continue until you feel more **relaxed**.