Diaphragmatic Breathing

The diaphragm is the most efficient muscle of breathing. It is a large, domeshaped muscle located at the base of the lungs. Your abdominal muscles help move the diaphragm and give you more power to empty your lungs. But <u>chronic</u> <u>obstructive pulmonary disease</u> (COPD) may prevent the diaphragm from working effectively.

When you have pulmonary disease, air often becomes trapped in the lungs, pushing down on the diaphragm. The neck and chest muscles must then assume an increased share of the work of breathing. This can leave the diaphragm weakened and flattened, causing it to work less efficiently.

Diaphragmatic breathing is intended to help you use the diaphragm correctly while breathing to:

- Strengthen the diaphragm
- Decrease the work of breathing by slowing your breathing rate
- Decrease oxygen demand
- Use less effort and energy to breathe

Diaphragmatic breathing technique

 Lie on your back on a flat surface or in bed, with your knees bent and your head supported. You can use a pillow under your knees to support your legs. Place one hand on your upper chest and the other just below your rib cage. This will allow you to feel your diaphragm move as you breathe.



2. Breathe in slowly through your nose so that your stomach moves out against your hand. The hand on your chest should remain as still as possible.



3. Let the air out, as you exhale. Let the air flow passively from the abdomen. The hand on your upper chest must remain as still as possible.



When you first learn the diaphragmatic breathing technique, it may be easier for you to follow the instructions lying down, as shown on the first page. As you gain more practice, you can try the diaphragmatic breathing technique while sitting in a chair, as shown below.

To perform this exercise while sitting in a chair:



- 1. Sit comfortably, with your knees bent and your shoulders, head and neck relaxed.
- 2. Breathe in slowly through your nose so that your stomach moves out against your hand. The hand on your chest should remain as still as possible.
- 3. Place one hand on your upper chest and the other just below your rib cage. This will allow you to feel your diaphragm move as you breathe.
- 4. Let the air out, as you exhale. Let the air flow passively from the abdomen. The hand on your upper chest must remain as still as possible.

Note: You may notice an increased effort will be needed to use the diaphragm correctly. At first, you'll probably get tired while doing this exercise. But keep at it, because with continued practice, diaphragmatic breathing will become easy and automatic.

(Information copied from Cleveland Clinic: <u>https://my.clevelandclinic.org/health/articles/diaphragmatic-breathing</u>); few modifications made by Sam Hughes (MScPT, Fraser Health Authority)