

Diaphragmatic Breathing

The diaphragm is the most efficient muscle of breathing. It is a large, dome-shaped 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 chronic obstructive pulmonary disease (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

1. 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. Tighten your stomach muscles, letting them fall inward as you exhale through pursed lips (*see "Pursed Lip Breathing Technique"*). 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 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. 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.

3. Tighten your stomach muscles, letting them fall inward as you exhale through pursed lips (*see "Pursed Lip Breathing Technique"*). 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.

How often should I practice this exercise?

At first, practice this exercise 5-10 minutes about 3-4 times per day. Gradually increase the amount of time you spend doing this exercise, and perhaps even increase the effort of the exercise by placing a book on your abdomen.

Some tips on learning diaphragmatic breathing.

Start while lying on your back. Place one hand on your chest and one hand on your belly (between navel and ribs). Focus on allowing the belly to rise easily when inhaling and fall when exhaling. **HOLD THE CHEST STILL** with your hand on your chest. The objective is to breathe **all the time** with the belly (diaphragm) and not the chest. You are aiming at about 6 breaths per minute. This is a slow relaxed process. There should be no sense of effort.

If the belly won't move and the chest continues to move, put a weight on the belly between the navel and ribs (where their hand was). A heavy book will do, but a sandbag that weighs 3 - 5 pounds is best. Focus on "allowing" the weight to rise on inhale and sink on exhale. Again - no effort!

If still no success, kneel on all fours, ie., assume a position of a four-legged animal. In this position, the chest tends to be locked in place, forcing the diaphragm to take over the breathing task. Slow and easy, no effort.

In some stubborn cases, biofeedback of the diaphragm, chest, and various muscles involved can unstick a stuck diaphragm. This requires someone with the proper equipment and trained in the technique.

Once the person learns to breathe with their belly, they must practice, practice, practice. The first week, they should practice for only a few breaths at a time while lying on their back. Then gradually extend the practice time to 15 minutes. When this can be done comfortably, they should start to practice while sitting. Then standing. Then walking.

After they can breathe with the belly in all positions, they are to practice in different situations. Start with easy situations like sitting in a car. Then sitting in a restaurant. Progress until they can breathe with the belly in situations that previously provoked a panic attack. See phase 3 below.

IMPORTANT: If at any time during the breathing training, they feel dizzy or light-headed, they are to stop the exercise, rest, and try again in a few minutes. The breathing training is not about being tough or facing your fear. It is about learning to breathe to normalize the bodily functions.