

Role of Breathing Exercises in Post Covid Setting



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The COVID-19 is an ongoing pandemic of coronavirus disease 2019 caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). WHO reported over 128 million individuals confirmed COVID-19 globally till March 2021, resulting over 2.8 million deaths. Approximately 20% of asymptomatic people who test positive for COVID-19 will remain symptom-free over time. An electronic literature review of COVID-19 studies propose that most of asymptomatic patients should be considered pre-symptomatic resulting significant damage in respiratory system, often leads to pneumonia and even acute respiratory distress syndrome (ARDS) a severe lung injury. Recovering lung function is possible but can require therapy and exercises for a month after the infection is treated. Breathing exercises is beneficial for patients with mild symptoms of COVID-19. Exercises like breathing control, pursed lip breathing, belly sleeping, walking, and thoracic expansion are good to keep the lungs healthy. These exercises should be followed in order to maintain the oxygen levels in the body and also to restore the lung functions.

How breathing exercises can help

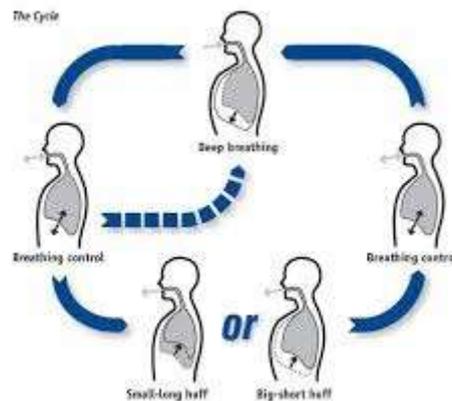
Healthy lungs, breathing is natural and easy and allows breath in and out with your diaphragm doing about 80 percent of the work to fill your lungs with a mixture of oxygen and other gases and exhale out. When the diaphragm muscle is weak, body starts to use other muscles in the neck, back and chest for breathing. This translates into lower oxygen levels, and less reserve for exercise and activity. Regularly practice breathing exercises can help the lungs to get rid of accumulated stale air increase oxygen levels and get the diaphragm to return to its job of helping you breathe. COVID-19 along with co morbidities such as diabetes, chronic respiratory disease and cardiovascular diseases are at a higher risk of developing infection. COVID-19 patients' experiences short of breath and oxygen saturation begins to fall. Regular breathing exercise and physical activities will improve lung problems and general conditioning. The scientific evidences still unclear but pulmonologist and rehabilitation specialists suggests breathing techniques will helpful to restore respiratory muscle strength and lung functions.

1. Breathing control

Breathing control is breathing gently, using as little effort as possible.

- a. Breathe in and out gently through nose or through mouth
- b. Breathe out through mouth, purse lips like are blowing out a candle
- c. Gradually try to make the breaths slower

d. Closing eyes to focus on breathing and to relax .It is very important to do breathing control in between the more active exercises of ACBT as it allows airway to relax.



2. Diaphragmatic Breathing (Belly Breathing)

Deep breathing restores lung function by using the diaphragm. Breathing through the nose strengthens the diaphragm and encourages the nervous system to relax and restore itself.

Recovering patients from COVID-19, the deep breathing exercise are given into phases of individual ability.

Start with Phase 1 increase repetitions or move to the next phase when you can complete the exercise without feeling breathlessness.

Phase 1: Deep Breathing

Lie on your back and bend your knees so that the bottoms of your feet are resting on the bed.

Place your hands on top of your stomach or wrap them around the sides of your stomach.

Close your lips and place your tongue on the roof of your mouth.

Breathe in through the nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.

Slowly exhale your breath through the nose.

Repeat deep breaths for one minute.



Phase 2: Deep Breathing While on Stomach

Lie on your stomach and rest your head on your hands to allow room to breathe.
Close your lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach. Try to focus on your stomach pushing into the mattress as you breathe.
Slowly exhale your breath through your nose.
Repeat deep breaths for one minute.



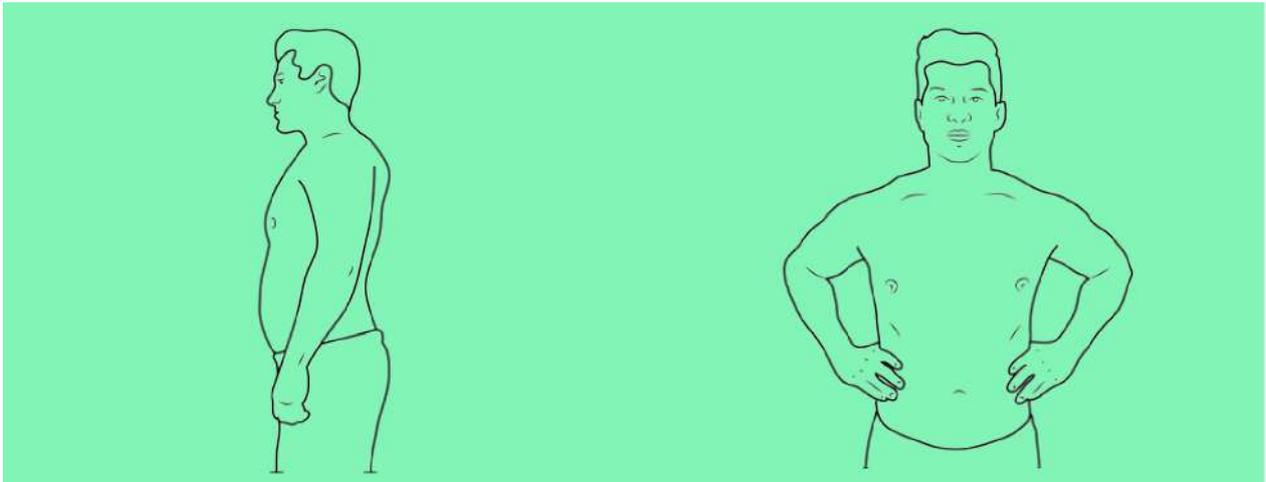
Phase 3: Deep Breathing While Sitting

Sit upright on the edge of a bed or in a sturdy chair.
Place your hands around the sides of your stomach.
Close lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.
Slowly exhale your breath through your nose.
Repeat deep breaths for one minute.



Phase 4: Deep Breathing While Standing

Stand upright and place your hands around the sides of your stomach.
Close your lips and place your tongue on the roof of your mouth.
Breathe in through your nose and pull air down into your stomach where your hands are. Try to spread your fingers apart with your breath.
Slowly exhale your breath through nose.
Repeat deep breaths for one minute.

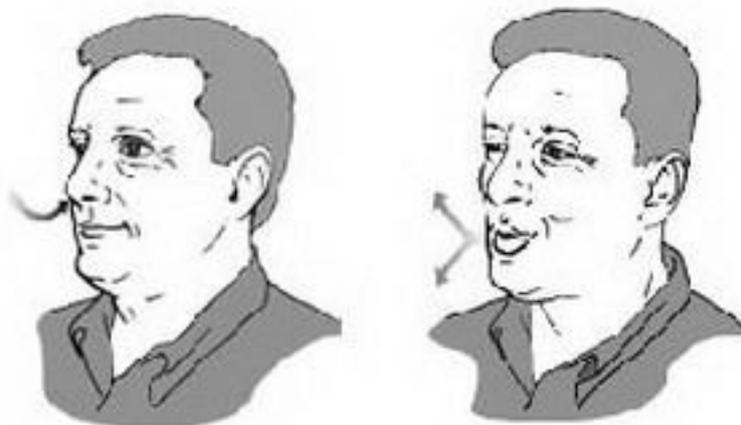


3. Gentle breathing

Relax your shoulders and body.
Gently breathe in and out in a relaxed manner

4. Pursed Lip Breathing

Take in a medium-sized breath.
Open your mouth breathes out forcefully and quickly engages your chest and stomach muscles.
Repeat once or twice and end the exercise with the exhaling huff, with pursed lips.



5. Huffing

A huff is exhaling through an open mouth and throat instead of coughing. It helps move sputum up airways so that you can clear it in a controlled way. To “huff” you squeeze air quickly from your lungs, out through your open mouth and throat, as if you were trying to mist up a mirror or your glasses. Use your tummy muscles to help you squeeze the air out, but do not force it so much that you cause wheezing or tightness in your chest. Huffing should always be followed by breathing control. There are two types of huff, which help to move sputum from different parts of the lungs.



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