

Active Cycle Breathing Technique (ACBT)

What is active cycle breathing?

- These breathing exercises help move secretions out of the lungs.
- An active cycle has 10 to 15 belly breaths, two large full breaths, and then 2 to 3 huff coughs at the end.

Active Cycle Breathing

10 to 15 Relaxed Belly Breaths



2 to 3 Full Breaths



2 to 3 Huff Coughs



Repeat or Normal Cough

- It can be done as many times as needed to clear the lungs.

What is belly breathing (diaphragmatic breathing)?

- The diaphragm is a large muscle under the lungs. Your abdominal or “belly” muscles help to move your diaphragm when you breathe.
- Using your diaphragm moves air deep into the bottom of your lungs. It gives you the power to breathe. It also helps you to use less energy to breathe.
- Belly breathing can help you control breathing when you are short of breath or having coughing spasms.

How to belly breathe

1. Sit comfortably with your shoulders relaxed.
2. Try to stay relaxed. You should not feel your shoulders or chest move if you are doing this the right way.
3. To feel your diaphragm move as you breathe, put one hand on your upper chest and the other on your belly just below your rib cage. It will also help you keep your upper chest still.
4. Take in a slow, gentle breath, through your nose. Your belly should move out against your hand as you breathe in (**inhale**). Your chest should be as still as possible.
5. Breathe out (**exhale**) through your mouth. As the air comes out your belly will move in. Shape your mouth like an “O” as you exhale.
6. Breathe slowly and focus on your breathing. Tell yourself to relax.
7. Hold your breath for 2 to 3 seconds at the peak of your breath. This will help to expand all of the areas of your lungs.

Breathing (continued)

- Belly breathing can also be done lying on your back. Put a small stuffed animal or pillow on your stomach as you breathe. If you are doing it right the animal should move up as you take your breath in. It should go down as you breathe out.
- Do belly breathing for 5 to 10 minutes, 2 or 3 times each day. At first you may tire easily. It will get easier the more you do it.

What is a huff cough?

- A controlled way of coughing that moves air quickly through your airway while the vocal cords (throat) are kept open.
- A gentle, low pressure cough. It is a number of “mini coughs” instead of one explosive cough.
- It can help you save energy and oxygen.
- Although the normal cough moves mucus out of the lung, it can also collapse the small airways. A huff cough keeps your airways open for good lung health.

How to huff cough

Control your cough – don't let it control you!

1. Keep your throat open and your mouth shaped like an “O”.
2. Slowly breathe in a comfortably big breath. Hold your breath for 2 to 3 seconds. This helps to get air behind the mucus so that it can be coughed out.
3. Keep your throat open and whisper the word huff as you cough. The huff is forced, but never violent. You will use your upper belly muscles to do this.
4. If you hear a wheeze, you are huffing too hard or too long. The huff cough should sound very different from your normal barking, explosive cough.
5. At the end of the first huff, take in a quick, smaller breath of air. Repeat the huff cough again.
6. If the mucus is in your throat area, use a normal cough to clear it from your airways. If the mucus is not in your throat, try not to do a normal cough. It may help to use relaxed belly breathing or take a sip of water to keep from coughing.
7. When you feel like you have controlled any coughing spasms, repeat huff coughing or active cycle of breathing.

ALERT: Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

This sheet was created to help you care for your child or family member. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment and follow-up.