

ORGANIZATION NEWS

Information/Education Page

Pursed Lip Breathing Exercise to Reduce Shortness of Breath



Audience

- People who experience shortness of breath or breathlessness (medically known as dyspnea¹).
- This information page may apply to healthy people or to people experiencing breathlessness due to medical conditions.

Purpose

- To help people learn more about shortness of breath.
- To help people understand the benefits of pursed lip breathing exercises to decrease breathlessness.
- To provide instructions to perform pursed lip breathing as well as provide resources for those affected by shortness of breath.

Important note: Notify your medical provider if you are experiencing shortness of breath. Please consult your physician first to check if this breathing exercise is right for you and/or if you experience problems with this breathing exercise.

What is shortness of breath?

- Shortness of breath is “discomfort or difficulty with breathing.”¹ During shortness of breath, a person may feel that they cannot catch their breath or get enough air and/or feel tightness in their chest.¹

Who experiences shortness of breath?

- Shortness of breath for an otherwise healthy individual can be due to vigorous exercise, weight gain, high altitude, and extreme temperatures.² Bad air quality can also lead to shortness of breath in an otherwise healthy person.³
- Experiencing shortness of breath can be scary and you may feel anxious, which can make you feel more short of breath.
- If you are experiencing unexplained shortness of breath, especially if it comes on suddenly and is severe, contact your doctor as soon as possible.^{2,3}
- Many medical conditions, especially those that affect your heart and lungs, can cause shortness of breath.²

- Shortness of breath can come on suddenly (known as acute) or last for a longer period (known as chronic).²
- Medical conditions that can result in shortness of breath² include:
 - Heart attack
 - Heart failure
 - Chronic obstructive lung disease
 - Asthma
 - Low blood pressure
 - Obesity
 - Tuberculosis
 - Lung cancer
 - Broken ribs
 - Generalized anxiety disorder

A more complete list of medical conditions that cause shortness of breath is available from the Mayo Clinic at <https://www.mayoclinic.org/symptoms/shortness-of-breath/basics/causes/sym-20050890>.

When should I worry about shortness of breath?

- According to the American Lung Association, shortness of breath with chest pain or pressure, nausea, or fainting may be a sign of a serious medical condition.³
- Please view additional resources at the end of this education page on what causes shortness of breath, when shortness of breath is a medical problem, when to contact your physician, when to seek emergency medical care, how to get help for shortness of breath, and other information related to shortness of breath.

What is pursed lip breathing and why is it important?

- Pursed lip is a breathing exercise that can be used to decrease symptoms of dyspnea.⁴
- This simple and easy breathing strategy can make your breaths more effective and decrease the rate of breathing.⁵
- Additional benefits of pursed lip breathing include improving breathing patterns, releasing trapped air in the lungs, promoting general relaxation, keeping your airways open longer, and prolonging exhalation.⁵

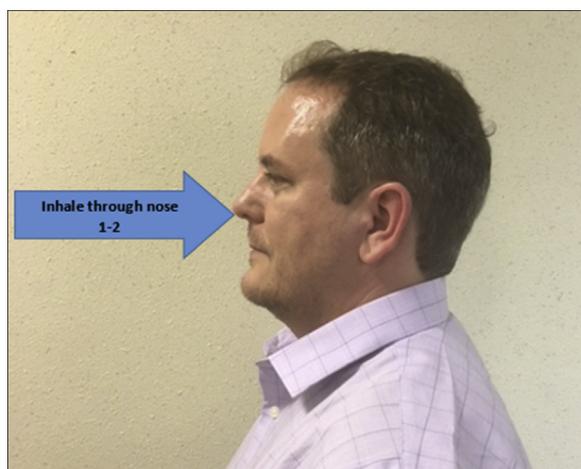


Fig 1



Fig 2

How is pursed lip breathing performed?

- Follow these steps:
 1. Be in an upright position such as sitting or standing.⁶
 2. Relax your shoulders and neck muscles.⁷
 3. With your mouth closed, slowly inhale (breathe in) through your nose for at least 2 seconds. It may help to count to yourself (fig 1).
 4. With your mouth closed, slowly exhale (breathe out) all the air in your lungs with your lips pursed, “as if you were going to whistle or gently flicker the flame of a candle,”⁵ for at least 4 seconds. It may help to count to yourself. Do not force the air out.⁵ Breathing out should be twice as long as breathing in.⁸ (fig 2).
 5. Perform pursed lip breathing until your breath becomes normal.
- If you continue to be short of breath after this exercise, call 911 or seek immediate medical attention.⁸
- **Note:** This exercise can be done with or without abdominal muscle contraction.⁴ A video example of pursed lip breathing can be viewed on the American Lung Association website at <http://www.lung.org/lung-health-and-diseases/protecting-your-lungs/breathing-exercises.html>.

Additional resources

CHEST Foundation. Shortness of breath. Available at <https://foundation.chestnet.org/patient-education-resources/shortness-of-breath-2/>.

Rush University. Dyspnea (shortness of breath). Available at <https://www.rush.edu/services/conditions/dyspnea>.

American Lung Association. Learn about shortness of breath. Available at <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/shortness-of-breath/learn-about-shortness-of-breath.html>.

Lung Institute. What is dyspnea, and when should it concern you? Available at <https://lunginstitute.com/blog/what-is-dyspnea/>.

Authorship

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Disclaimer

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3. American Lung Association (in partnership with the CHEST foundation). Learn about shortness of breath. Available at: <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/shortness-of-breath/learn-about-shortness-of-breath.html>. Accessed October 11, 2017.
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6. Reid WD, Chung F, Hill K. Cardiopulmonary physical therapy: management and case studies. Thorofare, NJ: Slack Incorporated; 2014.
7. Kam K. Breathing with COPD. Available at: <https://www.webmd.com/lung/copd/features/breathing-copd#1>. Accessed October 9, 2017.
8. American Lung Association. Breathing exercises. Available at: <http://www.lung.org/lung-health-and-diseases/protecting-your-lungs/breathing-exercises.html>. Accessed October 12, 2017.