Living Well with COPD™



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Managing Your Breathing and Saving Your Energy

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www.LivingWellwithCOPD.com

The skills you need to manage your COPD

Chronic obstructive pulmonary disease, or COPD, is a disease that can seriously affect every part of your life. As the disease progresses, it can take a toll on your daily activities. Fortunately, there is a lot that you can do to try and manage these limitations and improve your well-being. This is why we have created this series of workbooks on COPD self-management.

How can this program help me with the self-management of the disease?

This module is part of the Living Well with COPD program. It is an educational program in which you learn skills to help manage your disease and adopt healthy new lifestyle behaviours. The Living Well with COPD program has been tested in several clinical trials and the results were very encouraging. Patients who used these workbooks in collaboration with their healthcare worker, "case manager" or resource person and physician had fewer exacerbations requiring hospitalizations or emergency room visits. Their quality of life has also improved, enabling them to do more of the activities they enjoyed, and better cope with their disease.

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National and international guidelines agree that self-management education is extremely valuable for individuals with COPD. The Living Well with COPD Self-Management Program, which you can adapt to your own situation, was created by medical experts in collaboration with COPD patients.

This is your guide. Use it to write down your questions or concerns. Share it with people close to you so that they can understand what you are going through. Discuss whatever thoughts and feelings you have with your case manager or resource person and your physician.

Good luck with your program!

Dr. Jean Bourbeau
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RESPIPLUS

Welcome to “Managing your Breathing and Saving your Energy” of the Living Well with COPD series

When you have COPD, the simple act of breathing can become an effort. Not being able to breathe easily can affect every part of your life. It can affect your body by making you tired quickly. It can also have an impact on your emotions by making you feel tense and anxious.

Living Well with COPD can help you reduce your symptoms by managing your breathing and saving your energy in day-to-day activities.

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Feel your breathing

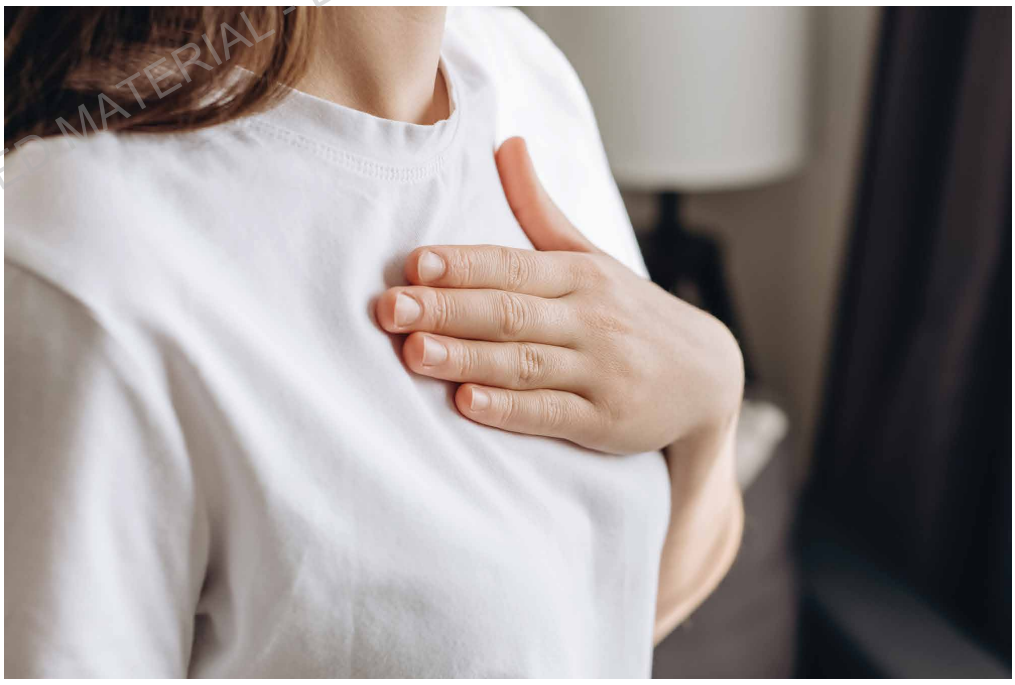
When you have COPD, you have more difficulty breathing than a person who does not have lung disease.

Take a few minutes to feel your breathing

Put one hand on your stomach and the other on your chest.

Describe what you feel

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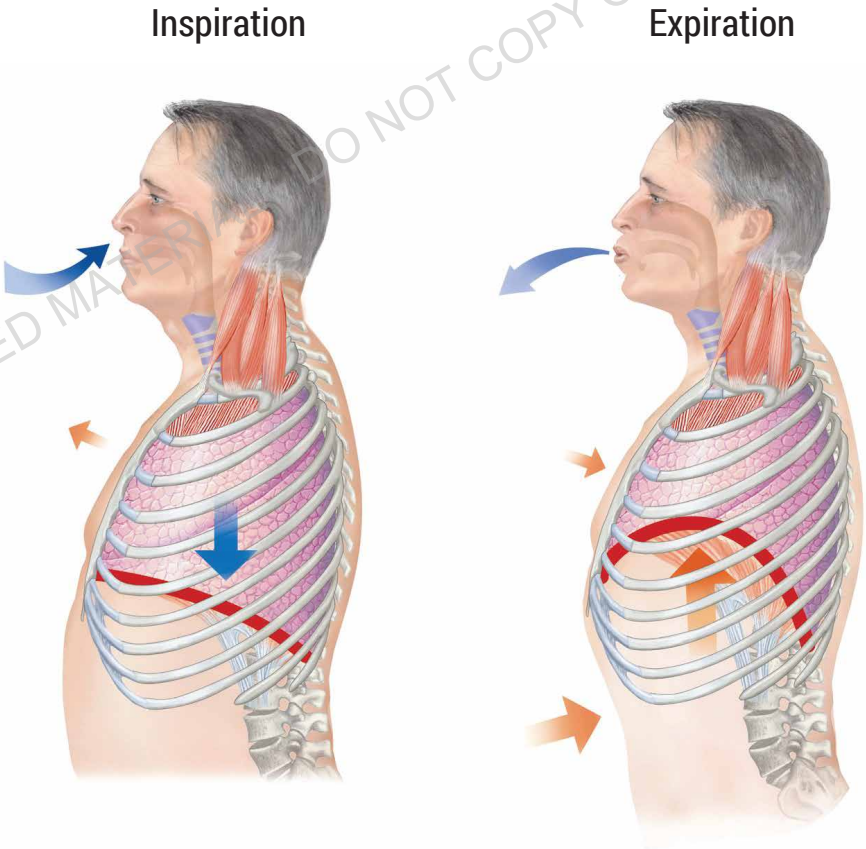


How breathing works

Breathing involves two phases: **inspiration** (movement of air into the lungs) and **expiration** (movement of air out of the lungs).

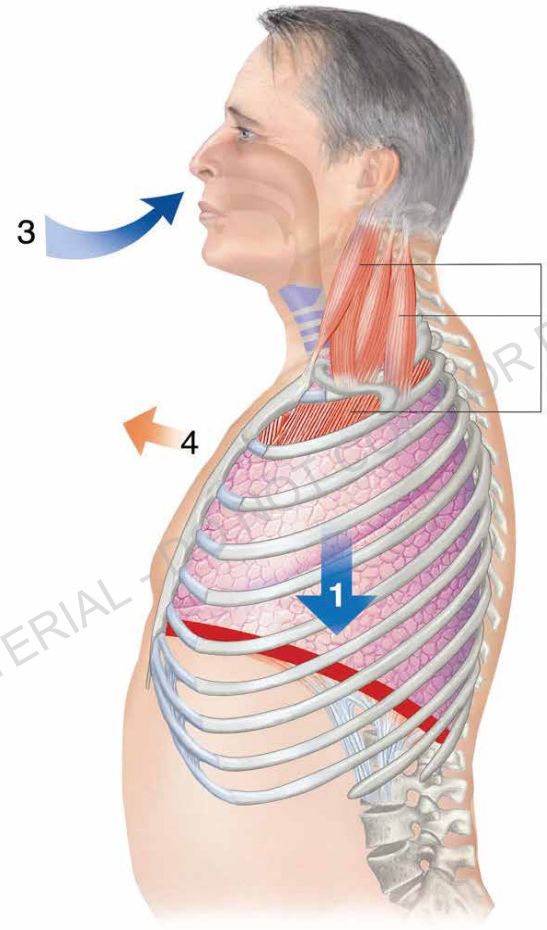
The diaphragm is the major muscle of breathing. When the diaphragm contracts (goes down), the chest expands so the air is pulled into the lungs. When the diaphragm returns to its normal position (goes up), air is pushed out of the lungs.

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Inspiration

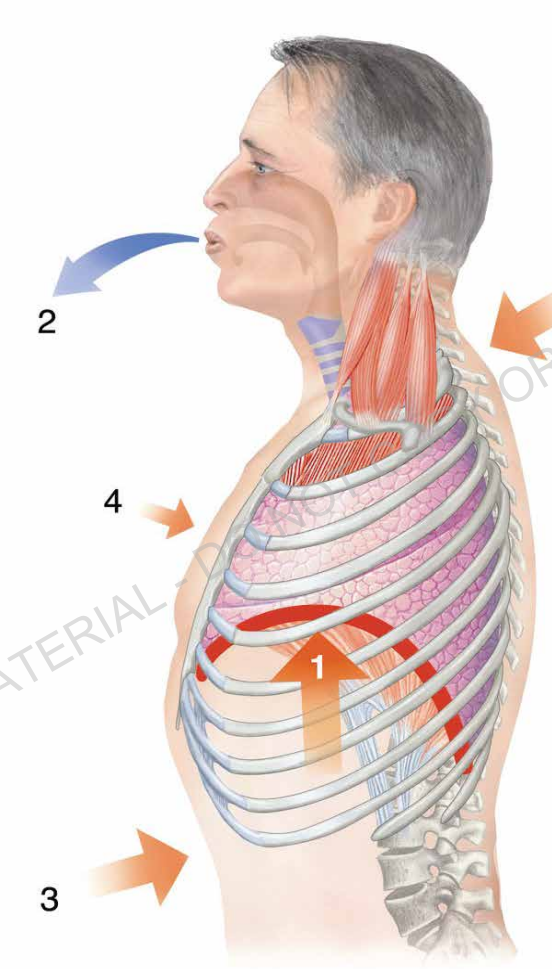


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1) The diaphragm contracts (goes down) to increase the space inside the chest.
2) The muscles from the neck and the ribs (accessory muscles) contract to help the diaphragm.
3) As a result, air is pulled inside your chest.
4) Your chest expands.



Expiration



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1) The diaphragm relaxes, as well as the muscles from the neck and the ribs (accessory muscles), which reduces the space inside the chest.
2) As a result, air is pushed out of your chest.
3) Stomach muscles contract to help push air out of your chest.
4) Your chest deflates.



When you have COPD, air is trapped inside your lungs

Air trapping

Because of airway obstruction and a loss of lung elasticity, your lungs do not fully empty, and air is trapped.

Breathing becomes more difficult

As a consequence of air trapping, the diaphragm has to work more and its movement is less efficient. In addition, accessory muscles, from the neck, ribs and stomach start to be used for breathing.

You experience shortness of breath

Because of air trapping in your lungs, you have trouble breathing in new air, and you develop shortness of breath.

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Reducing shortness of breath

Your medications can help you reduce air trapping in the lungs, and so can certain breathing techniques and body positions.

Being constantly short of breath can make you feel frightened and exhausted. In fact, shortness of breath is one of the major symptoms of COPD leading to anxiety and disability.

The important thing is to try and control your shortness of breath to help improve your quality of life.

If you reduce air trapping you can allow air to get in your lungs more easily, and as a result you will feel less short of breath.



Pursed-lip breathing

Pursed-lip breathing is one technique that can help you feel less short of breath.

Have you heard about the pursed-lip breathing technique? If yes, are you using it? How and when?

Goal

- With this technique, you breathe out slowly, which allows you to exhale more air, thus leaving less air trapped inside your lungs.

Benefits

1. Reduces breathing frequency and shortness of breath.
2. Helps you return to your normal breathing pattern after exercise or effort.
3. Improves your ability to perform different activities.
4. Increases your sense of control over your own breathing.

Points to remember

- The focus should be on expiration.
- Expiration should be longer than inspiration, but not forced.
- First master this breathing technique while at rest. Then you will be able to use it with activities requiring effort.

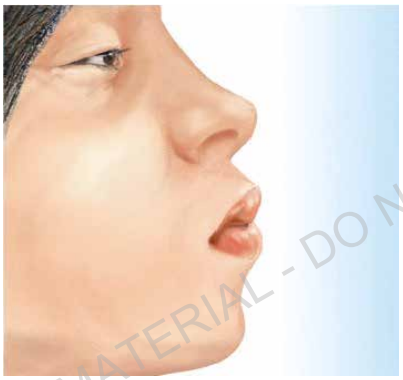
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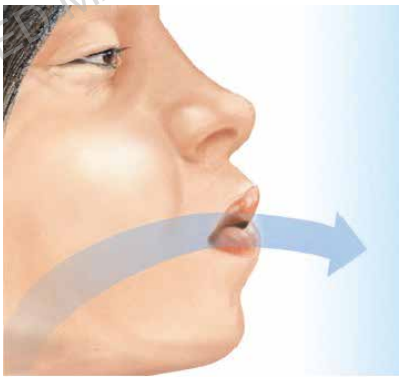
Pursed-lip breathing



1. Inhale slowly through your nose.



2. Purse your lips as you would to whistle.



3. Exhale slowly while keeping your lips pursed.

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1. Inhale slowly through your nose until you feel that your lungs are filled with air, without forcing.
2. Purse your lips as you would if you were whistling or about to kiss someone.
3. Exhale slowly while keeping your lips pursed. Make sure to take longer to breathe out than you would to breathe in. Remember to keep your lips pursed.
4. Do not force your lungs to empty.



Pursed-lip breathing technique on exertion

Learning how to inhale through your nose and slowly exhale through your lips can help to reduce shortness of breath when you are doing a physical activity. It can also keep anxiety from turning into panic if you experience an acute attack of shortness of breath. You can apply pursed-lip breathing to various physical activities:

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Walking

- Inhale 1…2….
- Exhale 1…2…3….4

Suggestions

- Make sure the outdoor temperature is not too hot or cold.
- Wear comfortable shoes and clothing.
- Relax your muscles.
- Walk as fast and as far as you can while respecting your own limits.
- Do not hold your breath.
- Stop as often as you need to.



Carrying parcels

- Before lifting a heavy object, inhale through the nose.
- Get as close to the object as you can.
- Bend down and pick up the object while exhaling through pursed lips.
- Use pursed-lip breathing while carrying the object. Repeat the process when putting the object down.
- Always bend at the knees, keeping your back straight.



Pursed-lip breathing technique on exertion

Climbing stairs

If you suffer from severe shortness of breath:

- Inhale at rest.
- Climb one step while exhaling, and stop for inhaling. Repeat for each step.

If you are able to climb some steps:

- Inhale at rest.
- Climb 3-4 steps while exhaling, stop for inhaling.

If you are able to climb a flight full of stairs:

- Inhale at rest.
- Climb 3-4 steps while exhaling.
- Climb 2 steps while inhaling.
- Climb 3-4 steps while exhaling, etc.

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Suggestions

- Wear slip-resistant shoes.
- Keep stairs free of obstacles.
- Keep one hand over the railing for security.
- Do not pull the railing to climb.
- Climb slowly.
- Stop as needed.
- Do not force your exhalation.
- Respect your own limits.

Applying the pursed-lip breathing technique may seem to take too much time. However, you could actually end up saving time, since you may take fewer breaks because you will be less short of breath.



Body positions to reduce shortness of breath

Changing your body position while sitting or standing can help you breathe better.

Poor posture – with shoulders tensed or hunched over – can also lead to increased shortness of breath, because your chest cannot expand to its full capacity.

Goal

- To offer relief to accessory muscles (of the neck and abdomen) and improve diaphragm function.

Benefits

1. Help the diaphragm to move easier.
2. Help reduce shortness of breath.

Points to remember

- Use pursed-lip breathing with the different body positions.
- Lean your chest forward slightly. This will lessen pressure against your diaphragm, allowing it to relax more.

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Body positions to reduce shortness of breath

Sitting



Sitting position A

- Place both feet on the ground.
- Lean your chest forward slightly.
- Rest your elbows on your knees.
- Rest your chin on your hands.



Sitting position B

- Place both feet on the ground.
- Lean your chest forward slightly.
- Rest your arms on a table.
- Rest your head on a pillow.

Standing



Standing position A

- Lean your chest forward slightly.
- Rest your hands on your thighs.



Standing position B

- Rest your elbows on a piece of furniture.
- Rest your head on your forearms.
- Relax your neck and shoulders.



Standing position C

- Rest your hands on a piece of furniture.
- Avoid grabbing or leaning too hard on the table.
- This can overwork some of your accessory breathing muscles, and cause breathlessness if you hold the position too long.

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Body positions to reduce shortness of breath

Remember

- Use the body positions you have just learned when you feel short of breath or as often as you would like. They can help you accomplish your daily activities.

For more information and to see some examples of these techniques, feel free to consult the video "Breathing Techniques and Energy conservation" found on this link:
https://www.youtube.com/watch?v=T-sPM4uVpVc

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S.O.S. in an attack of shortness of breath

Experiencing a sudden attack of shortness of breath can be frightening. Learning to stay calm during an attack can help get your breathing and anxiety back under control.

What do you do when you experience a sudden attack of shortness of breath?

Goal

- To bring your breathing back to normal during a sudden attack of shortness of breath.

Benefits

1. Learn how to control shortness of breath.
2. Help reduce the panic associated with an attack.

Points to remember

- Give yourself the space and time to get your breathing back to normal.

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S.O.S. in an attack of shortness of breath

Steps

1. Stop and find a comfortable position.
2. Stay as calm as possible.
3. Lean your head slightly forward.
4. Relax your shoulders.
5. Inhale through your mouth.
6. Exhale through your mouth, while trying to breathe through pursed lips.
7. Inhale and exhale as fast as needed.
8. Start to exhale slowly without forcing the exhalation.
   All the while using pursed-lip breathing.
9. Slow your breathing.
10. Start to inhale through your nose.
11. Continue to pursed-lip breathe for at least 5 minutes.

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Describe what your family and friends might be able to do to help you when you are experiencing an attack of shortness of breath.



Suggestions for friends and family

Watching someone going through an attack of shortness of breath can be upsetting and frightening.

Be prepared. Let the people close to you know what to do if you find yourself short of breath.

Ask your friends or family members to:

- Talk to you slowly, be supportive and provide reassurance.
- Help you to concentrate on your breathing.
- Remind you to take a position to reduce shortness of breath. This can help you breathe easier.
- Help you to take your rescue medication as prescribed in your Action Plan.
- Monitor your symptoms closely.
- Call for help and ask questions from the contacts identified in your Action Plan.
- Help you find a way to get to the hospital.

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Airway clearance techniques

Cough and sputum are two other symptoms experienced by some people with COPD.

But did you know that some airway clearance techniques could help to better clear your lungs?

When you have COPD, your airways can be blocked with thick, sticky mucus or sputum. Not only does this make it harder for you to breathe, it also provides a breeding ground for infections.

Airway clearance techniques are therefore important, as they help to remove sputum from your lungs.

A regular hacking cough is often inefficient and exhausting.

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Airway clearance techniques

If coughing and a lot of secretions are an issue for you, what problems do they cause?

Do you get tired from coughing?

What strategies do you use to eliminate secretions from your lungs?

If you have sputum, how do you manage it during an exacerbation?

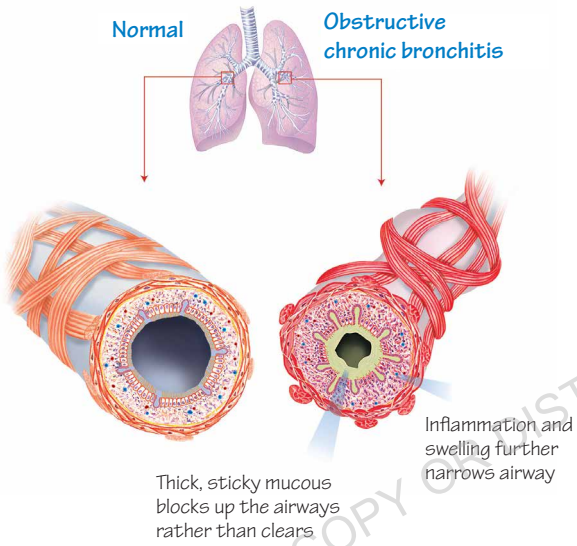
How can learning to cough properly help you breathe better and save your energy?

If you have problems clearing your secretions, ask your resource person which techniques and strategies you can use to help with this.

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Airway clearance techniques



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The accumulation of sputum in the bronchi (major air passages in the lungs) is a consequence of exposure to cigarette smoke, respiratory infections and inflammation of the respiratory tract. The mechanisms responsible include excessive overproduction of secretions, decreased function of the cilia (tiny hairlike structures lining the bronchi) that promote sputum uptake, closure of the small bronchi and ineffective coughing.

Goal

- Mobilize and remove sputum from your lungs with less effort.

Benefits

1. Reduce your shortness of breath.
2. Improve gas exchange.
3. Save energy by reducing the effort needed to breathe.
4. Prevent repeated infections (exacerbations).
5. Improve your quality of life.

Points to remember

- Avoid coughing in small fits.
- It is important to save energy.



Techniques and devices for airway clearance

These techniques and/or devices should be a part of your treatment regimen.

Here are the different techniques you can use to mobilize and eliminate the sputum in your lungs:

- Controlled coughing and "huffing" techniques that can help you to get rid of sputum.
- Active cycle of breathing techniques.
- Oscillating Positive Expiratory Pressure (OPEP) devices that help loosen and move sputum up your bronchial tubes.

Note

If your secretions change colour, follow the recommendations in your Action Plan. If there is blood in your secretions, contact your physician immediately.

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Controlled coughing technique

Goal

- To remove sputum from your lungs while using less effort.

Benefits

1. Can prevent infections caused by increased accumulation of sputum in your lungs.
2. Reduces shortness of breath caused by the sputum blocking your airways.

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Steps

1. Seat yourself in a comfortable position.
2. Lean your head slightly forward.
3. Place both feet firmly on the ground.
4. Inhale deeply through your nose without forcing.
5. Cough twice while keeping your mouth slightly open. The first cough will loosen your sputum. The second cough will move the sputum up into your throat. Spit the sputum out into a white tissue and check the colour.
6. Take a break and repeat once or twice if there are no immediate results.



"Huffing" technique

Goal

- To remove sputum from the lungs while using less effort.
- To save energy.
- To prevent infections caused by an increase of sputum in your lungs.

Benefits

1. Conserves your energy by helping remove sputum with an efficient technique.
2. Can prevent infections caused by an increase of sputum in your lungs.

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Steps

1. Seat yourself in a comfortable position.
2. Lean your head slightly forward.
3. Place both feet firmly on the ground.
4. Inhale deeply through your nose.
5. Exhale in short, non-forceful bursts ("huffs") while keeping your mouth open, as if you were trying to make mist on a window.
6. Repeat 2-3 times.

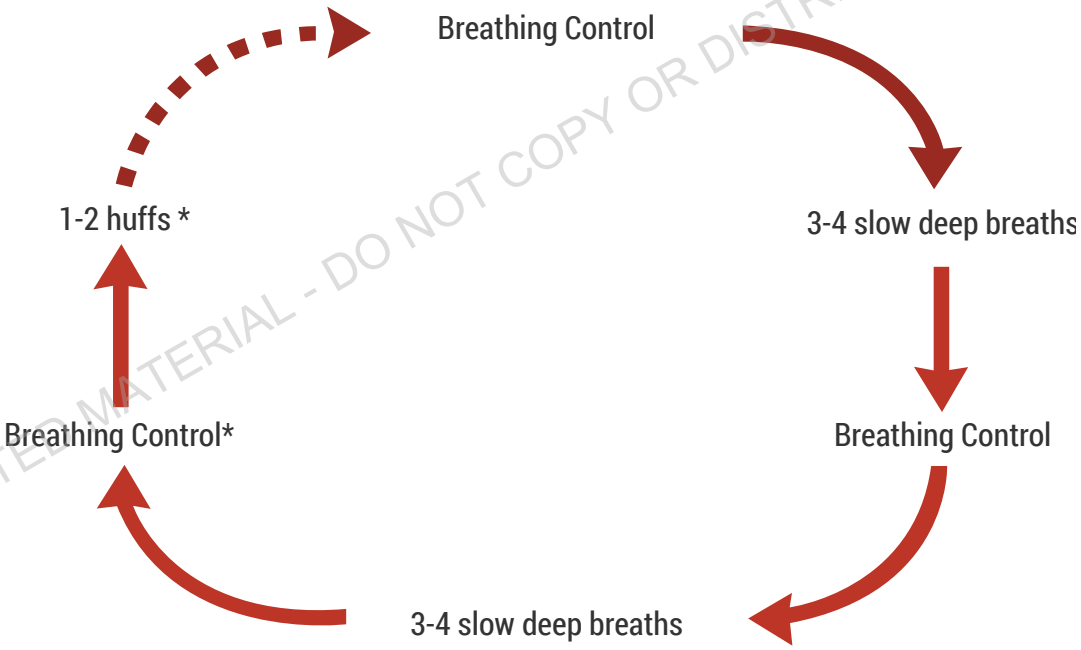


"Active cycle of breathing" technique

The "active cycle of breathing" technique is a combination of multiple techniques that makes airway clearance even more effective. The objectives of this technique are to loosen and expel sputum.

This technique is divided into several phases:

- Controlled breathing
- Slow deep breaths
- "Huffing" technique (or controlled coughing, as needed)



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* Repeat the controlled breathing and huffing techniques as needed, before restarting the cycle.



“Active cycle of breathing” technique

Steps

1. Seat yourself in a comfortable position, shoulders and neck relaxed.
2. **Controlled breathing:** Place one hand on your stomach. Breathe at your own pace until you feel relaxed and ready to move on to the more active phases of the cycle (20-30 seconds). You should feel your hand move as you breathe. Use the nose for inspiration to make breathing more comfortable.
3. **Then take 3-4 slow, deep breaths** (with the belly). If possible, hold your breath for 3 seconds after each breath. Repeat steps 2 and 3 once.
4. End with **controlled breathing.**
5. Proceed with the **"huffing" technique.**
6. The **"huffing" technique** can be performed 1 to 2 times, as needed, at the end of each active cycle.
    - The **controlled coughing technique** can also be used if the "huffing" technique is not working or you feel more comfortable.

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“Active cycle of breathing” technique

The complete Active cycle of breathing technique needs to be repeated until the “huffing” technique no longer produces any sputum, or if you feel fatigued.

In general, the complete cycle lasts between 10 to maximum 30 minutes, but the duration will vary from one person to another, even from one day to the next. Your healthcare professional will determine with you the length and frequency of the sessions according to your needs (i.e your treatments may last longer, or you may need more treatments in a day during exacerbations).

This technique can be performed in many different positions. With the help of your healthcare professional, you will be able to determine the position(s) in which the technique is most effective for you.

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Oscillating Positive Expiratory Pressure (OPEP) devices

Goal

- Prevent rapid closure of the airways by exhaling into the device.
- Allow mobilization of your sputum, due to vibrations transmitted into your bronchi.

Benefits

1. Improve your capacity to eliminate sputum with less effort.
2. Provide more autonomy. Devices can be used whenever you choose, with no assistance required.

Note

The use of these devices is not indicated for certain individuals. Discuss with your healthcare professional the conditions that determine whether or not you can use any of these devices.

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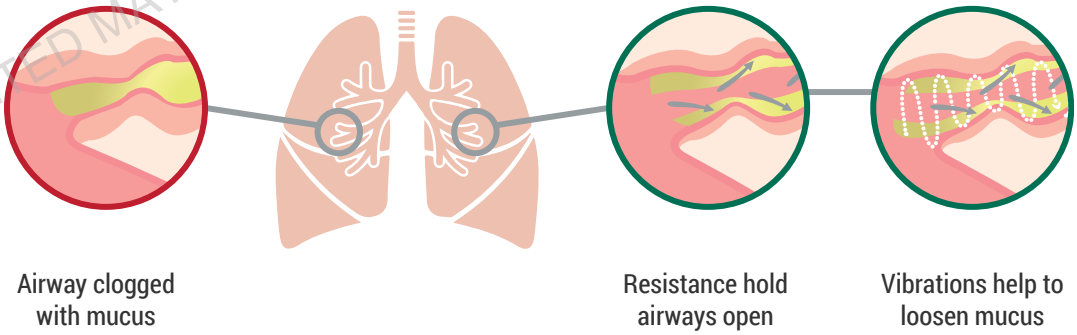
Oscillating Positive Expiratory Pressure (OPEP) devices

Do you already use a device to help mobilize your sputum? If so, which one(s)?

How OPEP devices work

As you exhale through an OPEP device, the device creates resistance against your exhalation, which allows your airways to remain open. At the same time, the device transmits vibrations into your bronchial tubes which permits the sputum to be loosened from the walls of your lungs, making it easier to be eliminated.

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Oscillating Positive Expiratory Pressure (OPEP) devices

Here are some examples of OPEP devices, currently available in Canada, that your healthcare professional may suggest you use:



Acapella® device



Aerobika® device



Flutter® device

It is possible that you will use a different device. Consult your healthcare professional to discuss the benefits and directions.

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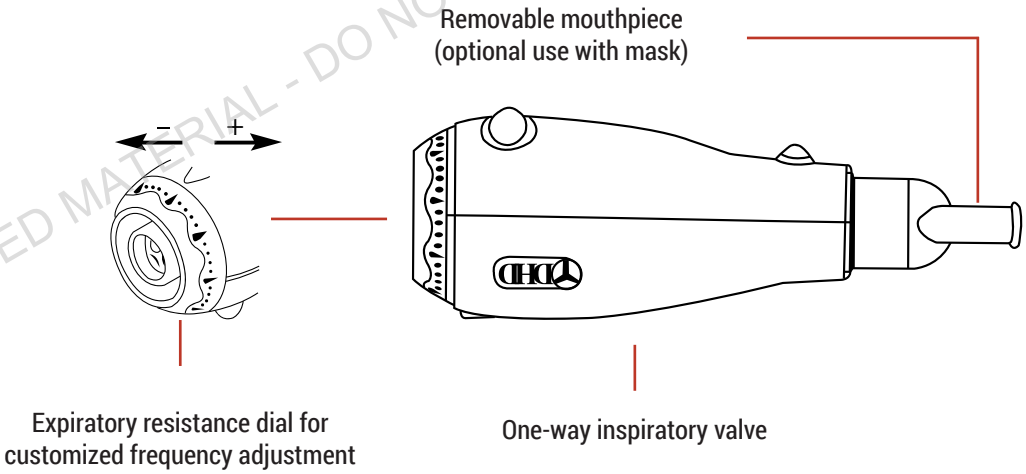


Acapella device

How does this device work?

- The Acapella device directs exhaled air into a cone that closes and opens successively, creating intermittent resistance over exhalation. The device then transmits vibrations into the bronchial tubes, which helps to loosen and displace sputum.
- Your healthcare professional will help you find the best setting for resistance and frequency. The possible settings range from 1 to 5, with 1 being the easiest and 5 the most difficult.

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Benefits

1. Allows inhalation and exhalation through the device without removing the mouthpiece.
2. Can be used in any position (sitting, standing or reclined), allowing you to move freely.



Acapella device

Directions for use

1. Choose a comfortable position. Place the mouthpiece in your mouth and close your lips around it to ensure an effective seal.
2. Inhale through the device taking a deeper breath than normal, without completely filling your lungs.
3. Hold your breath for 2-3 seconds.
4. Actively exhale, but not forcefully, through the device, keeping your cheeks flat and firm. Ideally, exhalation should last 3-4 times longer than inhalation. Try to suppress coughing in order to maximize sputum release.
5. Complete 10-20 breaths, or as many recommended by your healthcare professional. Remove the mouthpiece and do 2-3 "huffing" technique coughs to clear the sputum from your airways (as described on page 21). Keep some tissue paper at hand to cough into.
6. Wait 30-60 seconds and continue the cycle 3-6 times, as recommended by your healthcare professional.

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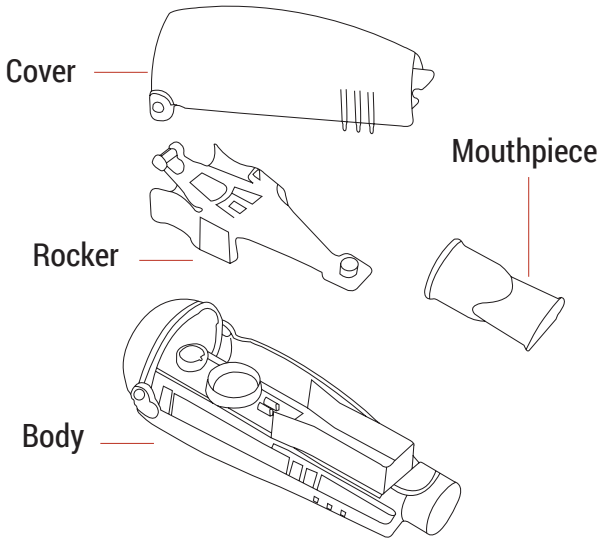


Acapella device

Additional notes

1. The Acapella device is a single-user device (should not be shared).
2. Before usage, carefully inspect the device. If there is a defect, replace it immediately. Make sure the expiratory resistance dial is set according to your healthcare professional's intructions.
3. When using, make sure to not cover the exhalation path at the back of the device with your hands.
4. Use your Acapella device regularly, at least twice a day or as recommended by your healthcare professional.
5. To avoid bacterial growth, it is very important to clean and disinfect the device on a regular basis.
   - The device must be taken apart after every use, cleaned with hot water and a gentle dish soap, rinsed with hot water and shaken.
   - Place the 4 separate parts on an absorbent paper towel until all parts are completely dry. Never use a cloth towel, as you want to avoid lint getting into the device.
   - The device must be disinfected once a day (follow the manufacturer's instructions and those of your healthcare professional).

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Aerobika device

How does this device work?

- As you exhale through the Aerobika device, a valve creates an intermittent resistance. The device then transmits vibrations through your bronchioles, which helps to loosen and move your sputum. The frequency of the vibrations is influenced by the resistance setting.
- The resistance will be adjusted by your healthcare professional according to your needs. The resistance will be set so exhalation lasts for 3–4 times longer than inhalation.

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Benefits

1. Increases pulmonary function and quality of life for certain patients.
2. Can decrease the frequency of exacerbations, emergency room visits, hospitalizations and the use of cortisone and antibiotics.
3. Allows inhalation and exhalation through the device without removing the mouthpiece.
4. Is very light and easy to hold in any position (sitting, standing or reclined), allowing you to move freely.
5. Is durable and easy to clean (dishwasher safe).



Aerobika device

Directions for use

1. Choose a comfortable position. Place the mouthpiece in your mouth, between your teeth, and close your lips around it.
2. Inhale deeply through the device, without completely filling your lungs.
3. Hold your breath for 2-3 seconds.
4. Actively exhale, but not forcefully, through the device. Keep your cheeks flat and firm. Ideally, exhalation should last 3-4 times longer than inhalation. Try to suppress coughing for maximum sputum release.
5. Complete 10-20 breaths through the device, as recommended by your healthcare professional. After at least 10 breaths, remove the mouthpiece and do 2-3 "huffing" technique coughs and, if necessary, do 2-3 controlled coughs to eliminate the sputum (as described on pages 20-21). Keep some tissue paper at hand to cough into.
6. Wait 30-60 seconds and continue the cycle 3-6 times, as recommended by your healthcare professional.

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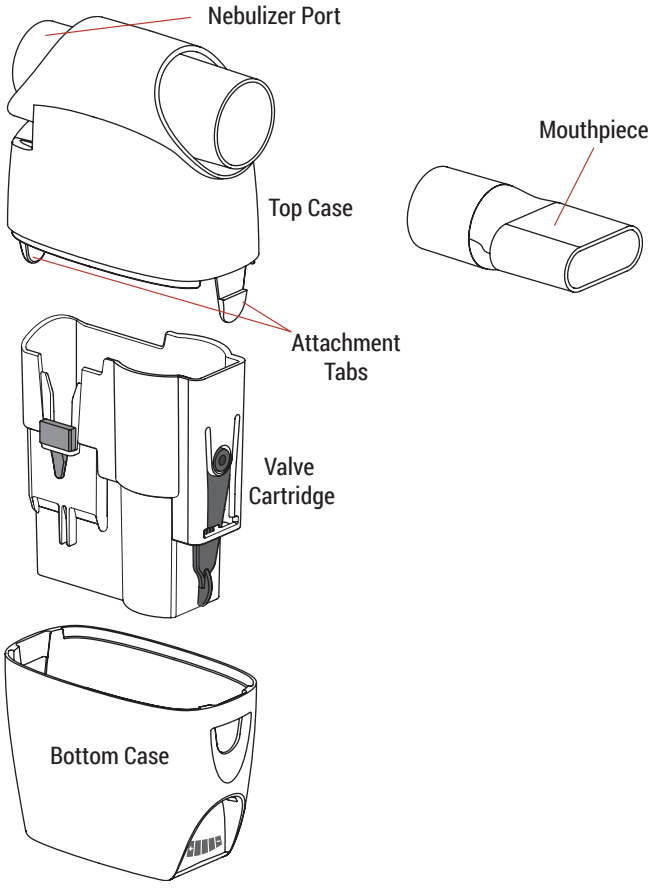


Aerobika device

Additional notes

1. Aerobika device is a single-user device (should not be shared).
2. Before usage, carefully inspect the device. If there is a defect, replace it immediately. Make sure the resistance adjustment knob is set according to your healthcare professional's intructions.
3. When using, make sure to not cover the exhalation path at the back of the device with your hands.
4. Use your Aerobika device regularly, at least 2 times a day, or that recommended by your healthcare professional. In the event there is more sputum than usual, increase to 3-4 times per day.
5. In order to avoid the growth of bacteria, it is very important to clean and disinfect the device regularly.

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Aerobika device

Additional notes

- The device must be cleaned at the end of each day. Once the parts have been disassembled, they must be soaked for 15 minutes in hot soapy water (using gentle soap). Shake them gently before rinsing with hot water.

- Note that this device is dishwasher safe. To dry the parts, shake them and place them on an absorbent towel until all the parts are completely dry.

- The device must be disinfected once a week (follow the manufacturer's instructions and those of your healthcare professional).

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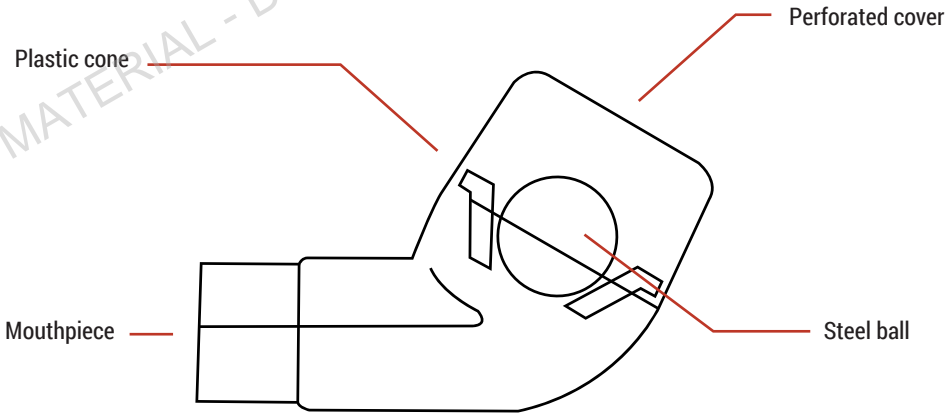


Flutter device

How does this device work?

- As you exhale through the device, the steel ball inside the device bounces up and down, creating an intermittent resistance against the passage of air and therefore transmits vibrations in the bronchi, which will help loosen and move the sputum.
- The angle at which the device is held is very important as it determines the frequency of the vibrations. Your healthcare professional will help you determine which angle will maximize the vibrations in your chest, and therefore allow the most sputum to be eliminated.

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Benefits

1. Increase pulmonary function.
2. Reduce shortness of breath and improve the ability to engage in physical activity.



Flutter device

Directions for use

1. Sit comfortably, back straight and head slightly tilted upwards.
2. Inhale through the nose, without completely filling your lungs.
3. Place the mouthpiece in your mouth and close your lips around it to ensure an effective seal.
4. Place the device at the appropriate angle, either slightly upwards or downwards, to maximize the effects of the vibrations in your chest.
5. Hold your breath for 2-3 seconds.
6. Actively exhale, but not forcefully, through the device. Keep your cheeks firm. Ideally, exhalation should last 3-4 times longer than inhalation. Try to suppress coughing for maximum sputum release.
7. Complete 15 breaths in the device, according to the recommendations of your healthcare professional.
8. Complete an additional 1-2 breaths in the Flutter device, however, this time breathe in slowly through the nose as slowly and comfortably as possible.
9. Hold your breath for 2-3 seconds.
10. Forcefully exhale through the device in the most complete and comfortable way possible, without completely emptying your lungs.
11. Remove the mouthpiece and do 2-3 "huffing" technique coughs and, if necessary, do 2-3 controlled coughs to eliminate the sputum (as described on pages 20-21). Keep some tissue paper at hand to cough into.
12. Wait 30-60 seconds and continue the cycle 3-6 times, as recommended by your healthcare professional.

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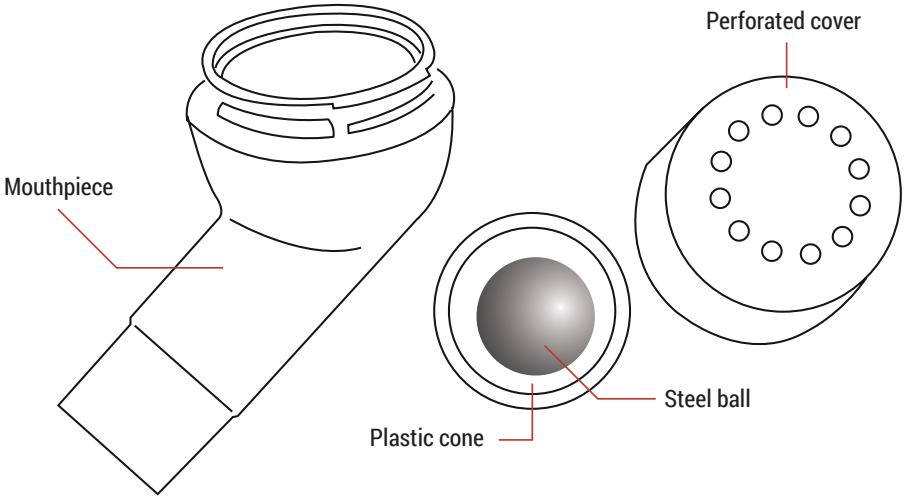


Flutter device

Additional notes

1. The Flutter device is a single-user device (not to be shared). Before usage, carefully inspect the device. If there is a defect, replace it immediately.
2. When using, make sure to not cover the exhalation holes on the end of the device with your hands.
3. Use your Flutter device regularly, at least 2 times a day, or that recommended by your healthcare professional.
4. In order to avoid the growth of bacteria:
   - After each use, the device must be disassembled, rinsed with clean water and wiped with a clean, dry paper towel.
   - Every 2 days, the device must be cleaned with hot water and mild dish soap. Shake the 4 parts and place them on an absorbent paper towel until all parts are completely dry.

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Here are some more suggestions to help you remove secretions from your lungs

1. Sputum can accumulate in your airways overnight. You should try to use your coughing techniques each morning.
2. Also, in order to get a good night's sleep, you could use these techniques in the evening before going to bed or before dinner.
3. Repeat your coughing techniques as needed, throughout the day, e.g. before going out.
4. Avoid bursts of coughing. This wastes your energy and could worsen your shortness of breath.
5. Keep these techniques in your routine, even if you don't seem to be removing that much sputum.
6. Make sure to stay well hydrated, this can help loosen your sputum.
7. Move regularly. This will help to mobilize your sputum.

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Preventing Reinfection of Your Lungs

If you have a lung infection when using your OPEP device (to help clear the secretions from your lungs) it is important to clean the device every day with soap and water during the infection. This is to avoid getting sick from your device.



Save your energy

Imagine yourself waking up on a beautiful, sunny morning

You stretch your arms and look through the window at the bright sunlight. You see that it is a perfect day for getting out and about.

Describe your breathing when you are brushing your teeth, shaving or combing your hair.

Describe your breathing when getting dressed or taking a shower.

Do you have to stop? Are you out of breath? In which way is your breathing different?

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Energy conservation principles

Staying active and keeping up your routine is important when you have COPD. Learning how to manage your breathing when performing your day-to-day activities can help you save energy and delay the onset of fatigue.

Goal

- To perform more effectively the daily activities that may cause fatigue and shortness of breath.

Benefits

1. Minimize fatigue and shortness of breath.
2. Better perform daily activities according to your level of energy.

Points to remember

- Try to get a sense of the times of the day when you have the least and most amount of energy.
- Do not forget to do activities that help you relax and recharge.
- Avoid rushing, even if you are the type of person who finds it hard to slow down.
- Do not try to do everything at once.
- Be aware of your body position and your breathing when performing an activity.

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Energy conservation principles

1. Prioritize your activities

- Evaluate what you have to do and what you would love to do.
- Eliminate activities that are not necessary.

2. Plan your schedule

- Stay active within your limits.
- Plan a realistic schedule for the day, week or month.
- Try to schedule the activities that require more energy (e.g. grocery shopping, medical appointments, vacuuming), at the time of day you have the most energy.

3. Pace yourself

- Understand your limits and respect them.
- Slow down your rhythm: a slower and regular rhythm uses up less energy.
- Slow down when you speak, laugh, eat or cough, since these actions can interrupt your regular breathing rhythm, causing shortness of breath.
- Alternate heavy and light tasks, e.g. don't go grocery shopping the same day you're vacuuming.
- Divide difficult tasks into smaller steps.
- Include relaxation breaks in your schedule.
- Get a good night's sleep.

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Energy conservation principles

4. Positioning

- Be aware of what movements (e.g. bending or reaching) cause you more shortness of breath or fatigue.
- See how you can organize the storage spaces in your house to reduce the need for reaching and bending.
- Try to work with your elbows and/or forearms supported.
- Avoid carrying heavy objects. Pushing, pulling or sliding objects can be less demanding.
- When you must carry something heavy, hold it as close to your body as possible.
- Work at a height that allows you to keep a good posture.
- If you feel tired, perform most of your activities while sitting (you will use less energy sitting than standing).

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5. Pursed-lip breathing technique

- Use pursed-lip breathing when doing physical activities.
- Exhale when an effort is required (e.g. when opening a heavy door: inhale, then exhale as you pull the door open).

6. Positive attitude

- Try to be patient and tolerant towards yourself and your family and friends.
- Keep your sense of humour.
- Visualize yourself as a person who makes the most of what they have, rather than as a victim of your disease.



Integration of energy conservation principles

How would you apply some of these principles when doing some of your daily activities? Give some examples.

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Let us hear the story of Beth

Shortness of breath can be hard to manage when you have COPD. I was much more mobile when I was first diagnosed. Walking was easier. Now, it takes me double the amount of time to walk to the bus stop. If I have to rush to catch the bus I would be in serious trouble and need my rescue medication. Strangers around me would constantly ask if I was alright because I was so short of breath. Cleaning my condo was also difficult because of the shortness of breath. I didn't realize at the time but the strong odors from the cleaning products would trigger it. Strong odors like perfume and cigarette smoke would also trigger it.

I really learned how to manage my shortness of breath on a daily basis through the pulmonary rehab program I attended. Learning to identify and avoid my triggers was one part of it. Another important lesson I learned was that it is ok to not push yourself to the limit. Take the time you need to stop, recover, and start up again with the proper breathing techniques. I learned about the 6 Ps of energy conservation when you have COPD: plan, prioritize, positioning, pace yourself, positive attitude, and pursed lip breathing. Pursed lip breathing really helps. It let's you to slow your breathing by extending the amount of time you are breathing out through pursed lips. Each breath is more effective. It also helps you get more oxygen into your lungs. I rely on my breathing techniques constantly. It was a little strange to constantly think about my breathing at the beginning, but now it has become second nature to me. I do not think I could manage on a daily basis without them.

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Test your confidence level

On a scale of 1 to 10, circle the number that best represents the confidence that you have in your ability to apply the techniques taught in this module.

1. To use your pursed-lip breathing technique in your daily activities?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

2. To apply body positions to reduce shortness of breath?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

3. To manage your breathing during an attack of shortness of breath?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

4. To use airway clearance techniques to clear the sputum in your lungs?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

5. To integrate energy conservation principles into your daily life?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

6. Do you think the breathing techniques taught in this module can help you to better manage your shortness of breath?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

7. Do you think that energy conservation principles can be useful in your daily life?

1 2 3 4 5 6 7 8 9 10
not at all confident very confident

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Improve your confidence level

If you feel confident to manage your breathing and save your energy, continue to apply the techniques taught in this module on your daily life.

If you feel that you are not able to manage your breathing and save your energy, what are the reasons?

What could you do to feel more confident in using the techniques taught in this module?

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Acknowledgements

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"This program has demonstrated a very positive impact on patient's health, as well as an important decrease in the frequency of hospitalizations and emergency room visits."

J. Bourbeau, respirologist
McGill University Health Centre

"A trend to increase the autonomy of the patient in the management of its own medical situation… I saw an invitation to get involved… We are moving towards an extremely important shift in the relationship between the patient and the doctor."

H. Tremblay, expert patient

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