



# Learning to Live with COPD

[mercy.net/COPD](https://mercy.net/COPD)



*Your life is our life's work.*

# My COPD Action Plan

Doctor:

Phone:

Emergency contact name and phone:

## I'm doing well.

- ☐ Breathing without shortness of breath
- ☐ Able to do daily activities
- ☐ Mucus is easy to cough up
- ☐ Able to exercise as my health care provider directed

## Action:

- Continue your current medicines.

## I feel worse due to my COPD. I have:

- ☐ Shortness of breath
- ☐ Problems doing daily activities
- ☐ More coughing or wheezing
- ☐ Mucus that is thicker or discolored
- ☐ Fever
- ☐ Less appetite

## Action:

- Continue your current medicines.
- Add these rescue medicines to help ease shortness of breath and wheezing:  
\_\_\_\_\_  
\_\_\_\_\_
- Call your doctor to report on your change in signs and ask for further instructions.

## I feel I am in danger. I have one or more of these signs:

- ☐ I feel like I can't breathe! I have severe shortness of breath.
- ☐ Not able to do daily activities
- ☐ Chest pain
- ☐ Confused, slurred speech
- ☐ Feel faint

## Action:

- Take rescue medicine and call 911 or your emergency medical services now!!

# Table of Contents

What is COPD?	4
The Causes of COPD	4
Air Movement Into and Out of Lungs	5
How COPD Affects the Lungs	6
The Symptoms of COPD	7
Treatments for COPD	7
Inhaled Breathing Medications	8
Using Metered Dose Inhaler (MDI) with Spacer (air chamber)/Mouthpiece	10
Once-a-Week Cleaning of Your Metered Dose Inhaler (MDI)	11
Using a Spacer vs. No Spacer	12
Cleaning Your Spacer with Mouthpiece	12
Using a Dry Powder Inhaler	13
Using a Respimat® Inhaler	14
Using a Nebulizer	15
Supplemental Oxygen	16
Breathing Techniques	17
Living with COPD	18
Resources for Patients	20

# What is COPD?

**Chronic Obstructive Pulmonary Disease (COPD)** is a common, usually preventable, treatable lung disease that causes long term respiratory symptoms, that causes trouble breathing. With COPD, the tubes in the lungs become tight and swollen. The lung stretches out with a breath in, but it doesn't shrink back into place when breathing out as normal lungs do. All of these problems together can cause air to be left in lungs after a normal breath out. Over time air becomes "trapped" in the lungs making it harder to breath in and affecting oxygen and carbon dioxide levels in the blood.

## Causes of COPD

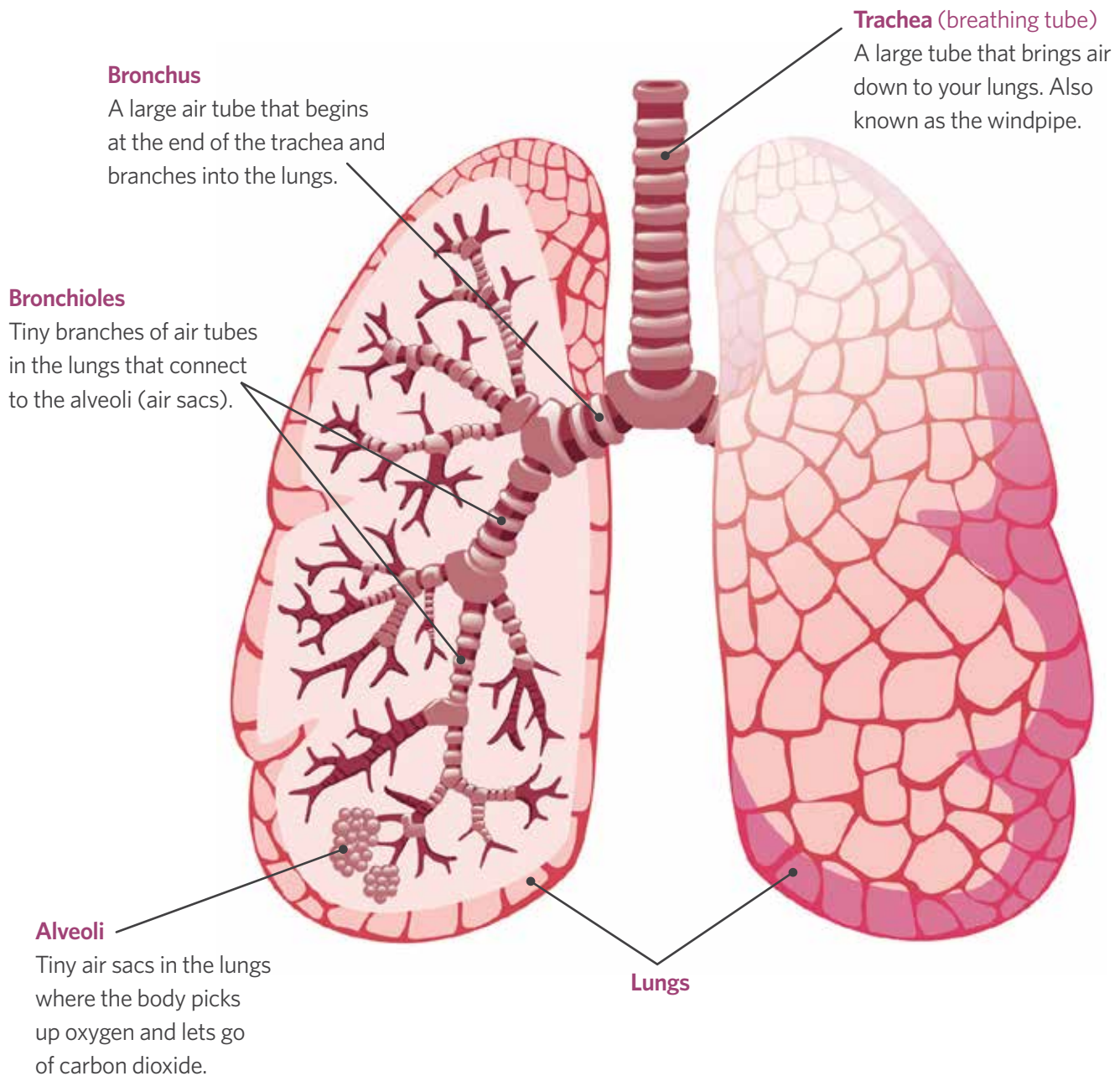
**Smoking** is the leading cause of COPD. If you smoke, quitting can help to slow down the progression of COPD.

### **Other causes of COPD include:**

- **Pollution:** Breathing in of irritants such as smoke, chemical fumes, dust and particles over a long period of time can cause COPD.
- **Genetics:** One form of COPD is caused by a genetic mutation. This mutation causes Alpha-1 Antitrypsin deficiency. Alpha-1 Antitrypsin protects the lungs, liver and other tissues from enzymes in the body. When absent in the lungs, the enzymes can cause damage to the elastic properties of the lungs. A blood test can determine whether Alpha-1 Antitrypsin is present.

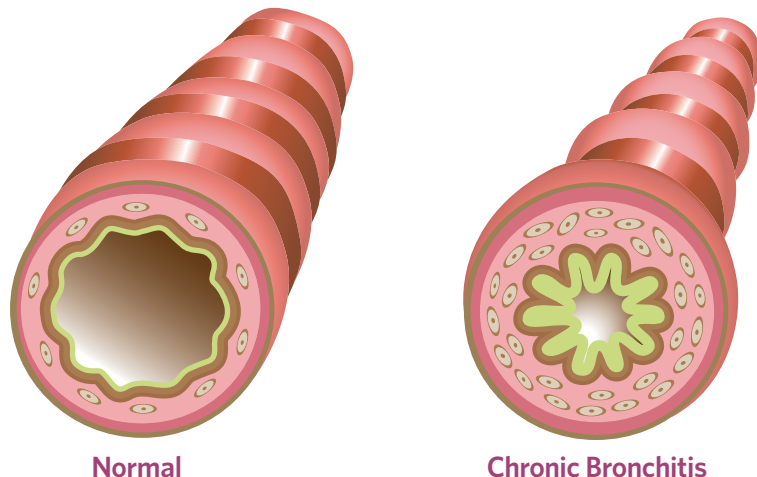
# Air Movement Into and Out of Lungs

Air is inhaled through the nose and mouth. It travels through the windpipe (trachea) into the bronchial tubes and bronchioles of each lung, eventually reaching tiny air sacs called alveoli. These air sacs are where oxygen crosses over to the bloodstream from the lungs and carbon dioxide crosses over from the bloodstream to the lungs. When these air sacs become damaged, the exchange of oxygen and carbon dioxide will be affected.

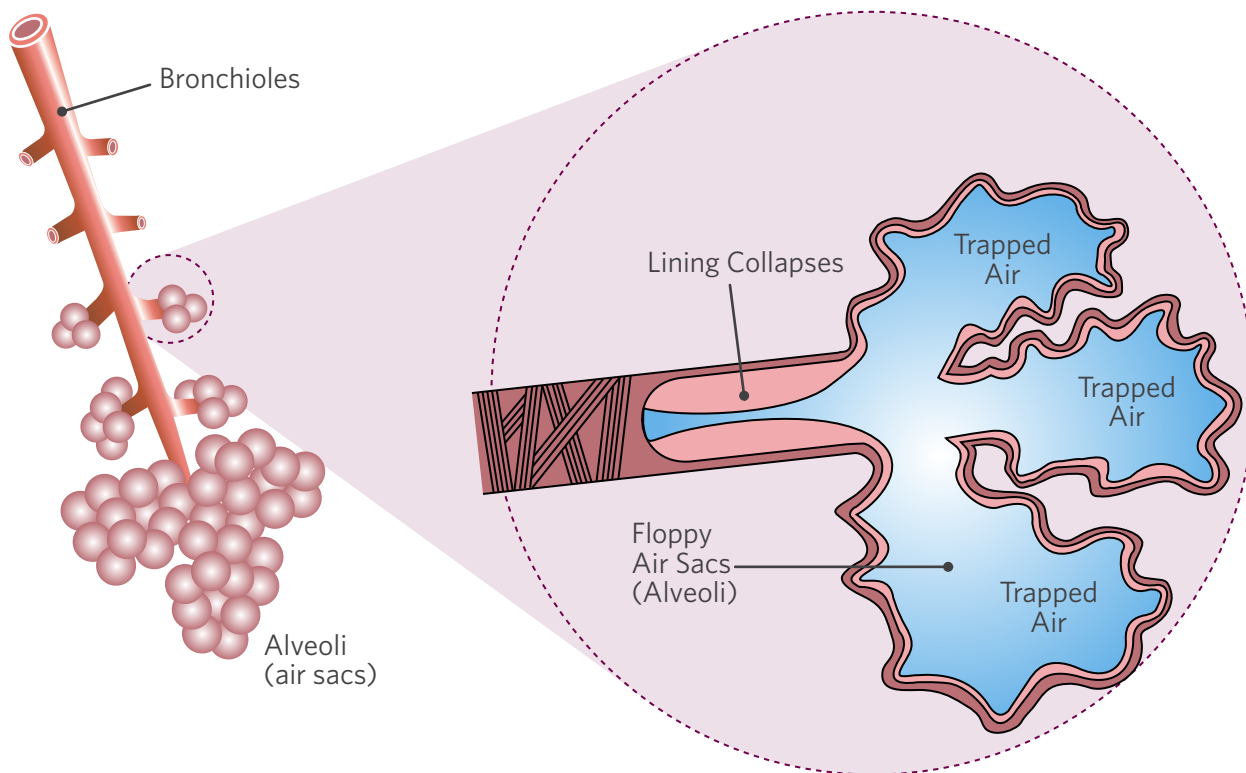


# How COPD Affects the Lungs

When bronchial tube walls thicken, the diameter of the airway is reduced. Some COPD patients may produce large amounts of mucus leading to chronic coughing and mucus production. The increased amount of mucus can lead to increased risk of lung infections.



The tiny air sacs, called alveoli, also become damaged with trapped air. Some are over stretched which can cause the feeling of shortness of breath. This also causes problems with oxygen and carbon dioxide movement to and from the lungs and blood.





# The Symptoms of COPD

The most common symptom of COPD is a feeling of shortness of breath. This may occur during activity or at rest depending on the severity of your COPD. Other symptoms may include:

- Tightness in the chest.
- Wheezing or noises in chest.
- Coughing that doesn't go away.
- Excessive mucus production.
- Feeling weak and tired.
- Weight loss, lack of appetite.

COPD patients also have times when their symptoms get worse. When this happens it is called an exacerbation. It is important to recognize the signs of an exacerbation to get early treatment for your increased symptoms.

## When to Call your Doctor

Call your doctor if you have any of the signs below:

- Fever.
- More than usual difficulty breathing.
- A generalized feeling of tiredness that is worse than usual.
- Increased cough and sputum production.
- Changes in color of sputum or blood in sputum.
- Increased swelling in your legs.

# Treatments for COPD

**Quitting smoking** is the best way to prevent COPD or slow its progression. If you smoke, make a plan to quit smoking now.

If you do smoke, here are some tips to help you quit:

- Make a list of reasons why you want to stop smoking.
- Set a target date and stick to it.
- Change your routine avoid times and places where you would normally smoke.
- Get rid of things that remind you of smoking such as ashtrays, lighters, matches and of course cigarettes.
- Join a support group.
- Talk to your health care provider about ways to help you quit smoking. Counseling combined with medicine works better than either one alone.
- Get support from family and friends by letting them know how to help you.
- Reward yourself! Use the money you save by NOT smoking to reward yourself when you have quit smoking.

Quitting can be difficult. If you're having problems quitting, Mercy's smoking cessation program, Road To Freedom, can help. This is a low-cost smoking cessation program that provides individualized coaching and support from a registered nurse who is a Certified Tobacco Treatment Specialist. More information is available at [mercy.net/quitsmoking-stl](https://mercy.net/quitsmoking-stl).

# Inhaled Breathing Medications

There are two main types of inhaled breathing medications used to treat COPD. It is important that you take your medicine as prescribed.

**Rescue medicines are short-acting bronchodilators.**

- Provides quick relief when breathing suddenly gets worse
- Lasts 4 – 6 hours
- Should only be taken when you have symptoms
- If you are needing quick relief medicines more often than usual call your health care provider

**Controller medicines are long-acting bronchodilators that may or may not contain a corticosteroid.**

- Used to keep symptoms under control
- Should be taken every day whether you have symptoms or not
- May help decrease the need for rescue medicines

**Bronchodilators** work by relaxing the smooth muscle that wraps around the bronchi, allowing airflow to be increased.

**Corticosteroids** work by decreasing swelling in the bronchi and bronchioles. If given by an inhaler you should swish water in your mouth and then spit it out after each use of the medicine to prevent a yeast infection in the mouth. Steroids can also be given in pill form or intravenously if needed when a patient is experiencing an exacerbation (worsening) of COPD.

Other medications that may be prescribed by your health care provider are:

- **Antibiotics** work by fighting bacterial infections.
- **Diuretics** help to get rid of excess fluid in your body. This fluid can get into the lungs making it harder to breathe.
- **Mucolytics** help to thin mucus and sputum so it is easier to cough it up and clear the airways.





# Using Metered Dose Inhaler (MDI) with Spacer (chamber)/Mouthpiece



1. Shake the inhaler hard up and down five times.



6. SLOWLY breathe in through your mouth. (If you hear a whistle, slow your breathing down!)



2. Take the mouthpiece cover off.



7. SLOWLY breathe in through your mouth. (If you hear a whistle, slow your breathing down!)



3. If the inhaler is new or has not been used for several days, spray four puffs into the air first. These are called "priming puffs."



8. Hold your breath for 10 seconds. You want to fill your lungs with medicine for this long.



4. Push the MDI into the rubber end of the spacer so that it fits snug.

\*\*\* If another puff is needed, wait 30 seconds then repeat steps 5 – 8 for each puff

\*\*\* Rinse mouth or take something to drink after inhaled controller medicine containing corticosteroid



5. Sit up straight or stand up. Empty your lungs by taking a big breath in and then all the way out.

# Once-a-Week Cleaning of Your Metered Dose Inhaler (MDI)

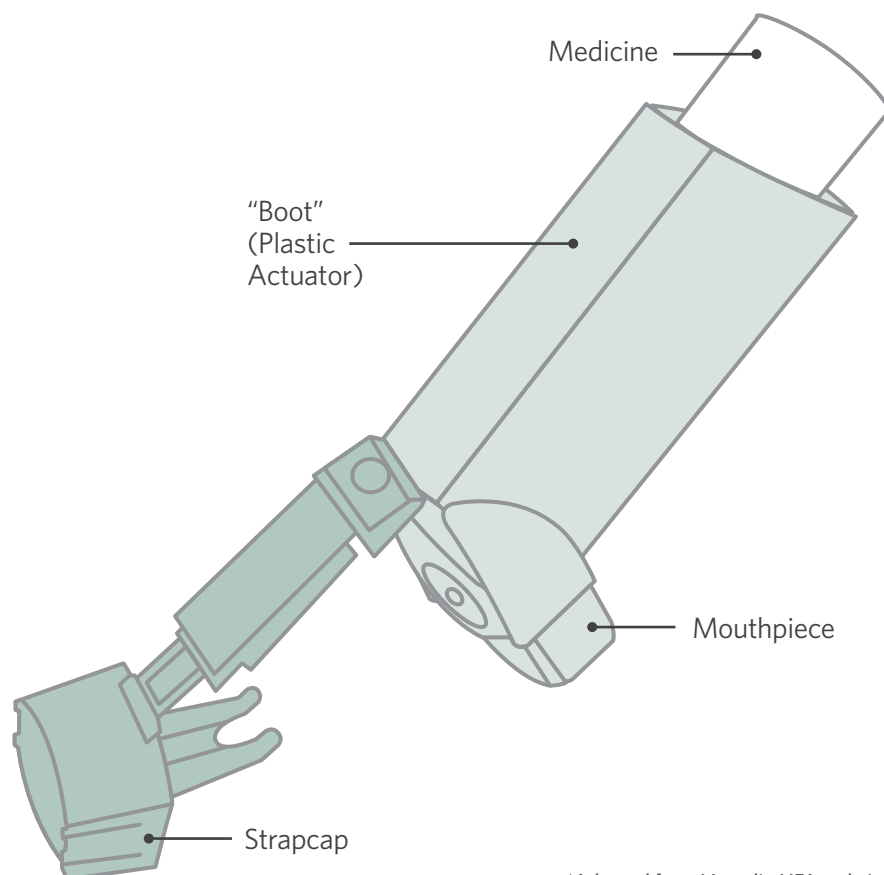
It is very important to keep the plastic “boot” (actuator) clean so that you get all of your medicine. The medicine can block the opening of the sprayer head in the boot if you do not clean it each week.

## Follow these steps.

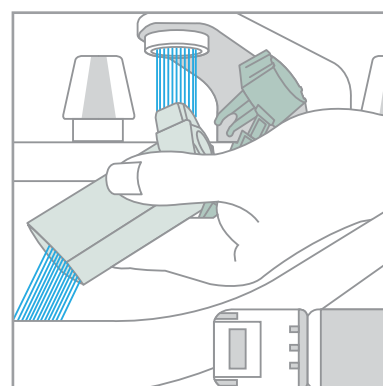
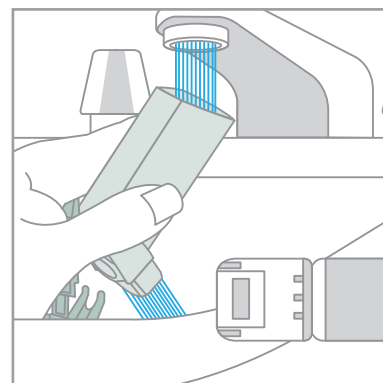
1. Remove the medication canister from the “boot.”
2. Never get the medication canister wet.

## For the Boot:

3. Hold one end of the plastic boot under a stream of warm, running water for 30 seconds. Turn it around to the other end. Run warm water through it for another 30 seconds.\*
4. Look to make sure that any medicine build-up on the nozzle inside the boot is gone. Repeat warm water rinse if needed.
5. Shake out extra water. Let air-dry overnight on clean towel.
6. When boot is completely dry, put medicine back into boot. Spray one spray of medicine into the air to make sure that is ready for your next use.

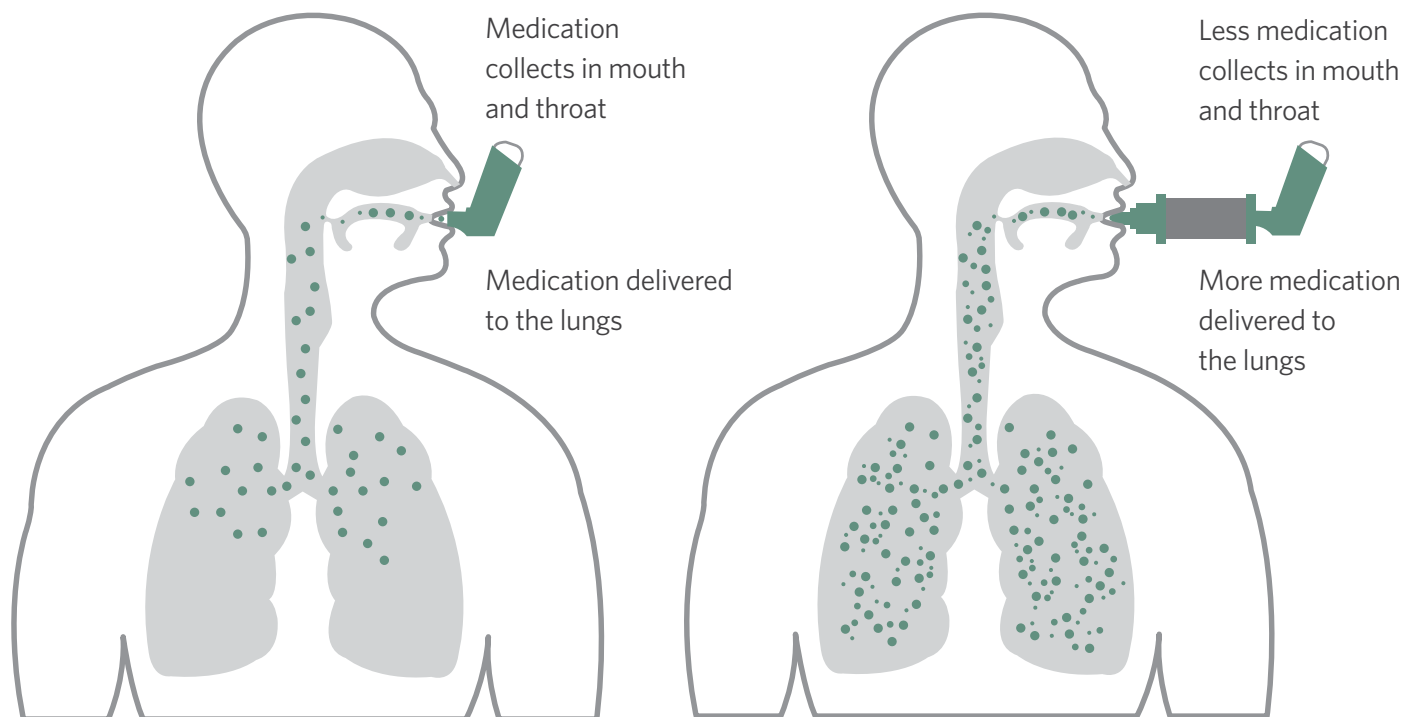


*\*Adapted from Ventolin HFA website*



## Using a Spacer vs. No Spacer

**Consider the benefits of using a spacer (chamber).**



### Inhaler Alone

Many patients do not use their inhaler properly resulting in poor delivery of medication to the lungs.

### Inhaler + Holding Chamber

Using a spacer with an inhaler improves delivery of medication to the lungs and reduces side effects.

## Cleaning Your Spacer with Mouthpiece

**Your spacer should be cleaned weekly, using the following steps:**

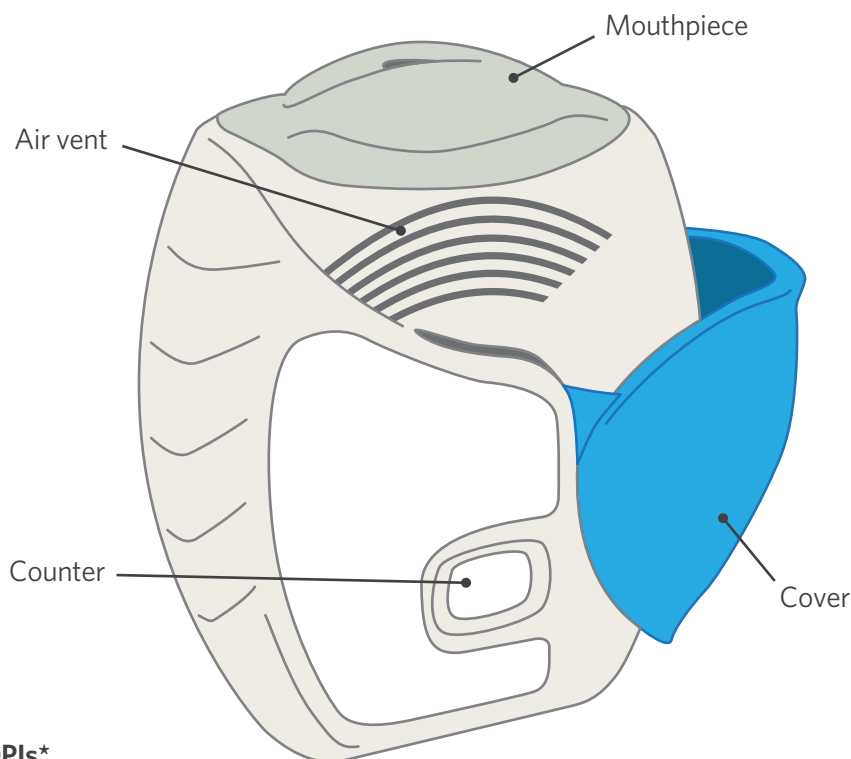
1. Remove the flexible back piece of the spacer.
2. Soak both parts for 15 minutes in warm water with liquid detergent.
3. Rinse both parts with clean water.
4. Shake out excess water.
5. Let dry overnight in upright position.
6. Replace flexible back piece when completely dry.
7. Your spacer is now clean and ready to use.



# Using a Dry Powder Inhaler

**Dry powder inhalers (DPIs)** are another type of inhaler that can be used to take medications. There are several different devices that are specific to individual medications. All DPIs have the same method for breathing in the medication.

1. Load the dose of medication by the manufacturer's instructions. Only one dose will load at a time and should be taken as soon as it is loaded.
2. With the device held away from your mouth, breathe out all the way, as this will allow you to take in a deep breath with your medication.
3. Place the mouthpiece of the device into your mouth. Be careful not to block any air vents with your mouth or fingers.
4. Seal your lips tightly around the mouthpiece and breathe in as fast and deep as you can through your mouth.
5. Remove the device from your mouth and hold your breath up to 10 seconds. **DO NOT EXHALE INTO THE DEVICE.**
6. If needed wipe only the mouthpiece with a tissue after use before closing the cover on the device.
7. Close the cover on the device
8. If the medication contains a steroid, rinse your mouth with water and spit it out.
9. There is a dose counter on the device that indicates the number of doses remaining. Be sure to have a replacement available before it becomes empty.



**\*Spacers are not used with DPIs\***

# Using a Respimat® Inhaler

A **Respimat inhaler** is a device that can deliver a variety of medications in an aerosol form.

1. With the cap closed, press safety catch and pull off clear base. Do not touch the piercing element inside of the bottom of the clear base.
2. On the “discard by date” label, write the date for three months (90 days) from the date the cartridge is inserted.
3. Take the cartridge out of the box and insert the narrow end into the inhaler. One-eighth of an inch will remain visible when fully inserted. Push the cartridge against a firm surface for the correct insertion. Don’t remove it once inserted.
4. Put the clear base back into place and don’t remove it again.

## Priming for First-time Use

1. Hold the inhaler upright with the cap closed. Turn the clear base in the direction of the white arrow on the label until it clicks (one-half turn).
2. Flip cap open all the way.
3. Point the inhaler toward the ground and press the dose release button. Close the cap.

Repeat these steps three more times. The inhaler is now ready for use.

## Daily Use – Turn/Open/Press (TOP)

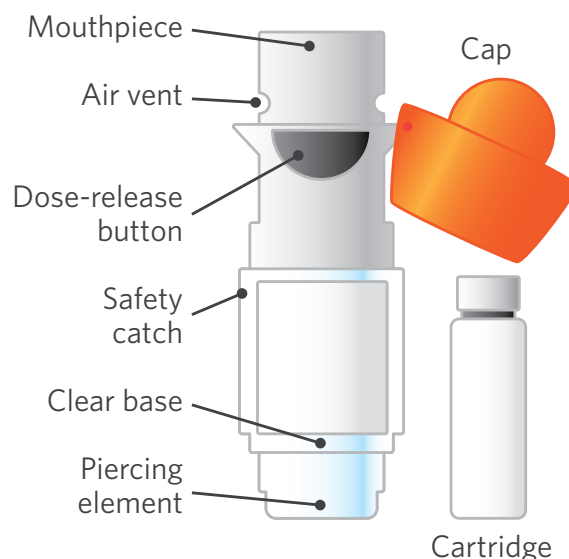
1. Hold Inhaler upright with cap on.
2. TURN the clear base in the direction of the white arrows until it clicks (one-half turn).
3. OPEN the cap fully, breathing out slowly and fully. Then place the inhaler in your mouth with lips sealed around mouthpiece without covering air vents and point inhaler to back of throat.
4. While inhaling slowly, press the dose button. Keep inhaling slowly as long as you can. Remove Respimat Inhaler from your mouth and hold your breath for up to 10 seconds. Close the cap on the inhaler.

If prescribed, take a second dose following these TOP instructions.

Clean the mouthpiece including the metal part with a damp cloth or tissue at least once per week and wipe the outside of the inhaler with a damp cloth when needed.

**Your Respimat inhaler must be assembled and primed before first use and primed again if not used in 21 days.**

**\*Spacers are not used with Respimat\***





# Using a Nebulizer



1. Take off the nebulizer cup.



2. Twist cap off of medicine vial.



3. Squeeze medicine into nebulizer cup.



4. Put the top back on the nebulizer cup.



5. Insert end of tubing into bottom of nebulizer cup.



6. Place nebulizer mask on top of nebulizer cup. The mask you have might look a little different than this one. Refer to the package insert on how to assemble.



7. Place mask on face as shown. The strap should fit.



8. If using a mouthpiece, close mouth tightly around mouthpiece and breath normally through nose.

**When treatment is finished the sound will become less steady and begin to sputter.**

## Caring for Your Nebulizer

There are many different types of nebulizer compressors. Always follow manufacturer's instructions for cleaning your nebulizer, parts and accessories. Clean your nebulizer cup and accessories after each use.

1. Wash your hands thoroughly.
2. Disassemble the nebulizer cup.
3. Gently wash mask or mouthpiece and medicine cup with warm soapy water and mild detergent.
4. Rinse mask or mouthpiece and medicine cup with clean water.
5. Do not wash nebulizer tubing or compressor.
6. Shake off excess water and place parts on a clean towel for air-drying overnight.
7. Put parts back together when completely dry.



## Supplemental Oxygen

Oxygen therapy can help you sleep more soundly, be more alert, give you more energy and improve your ability to perform physical activities.

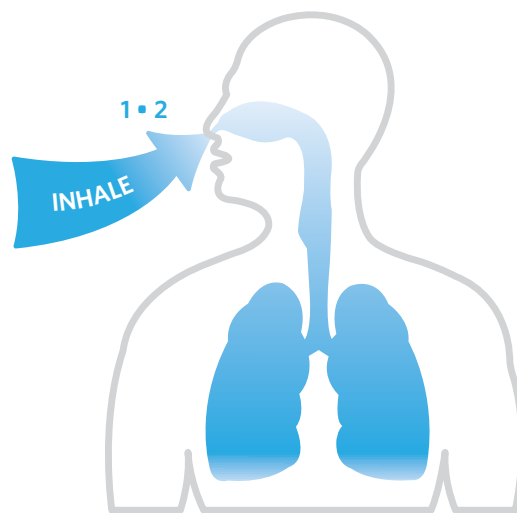
- Supplemental oxygen is prescribed by your provider when your blood oxygen levels are low.
- Oxygen is ordered in liters per minute, and should only be changed on order by your health care provider.
- If breathing is more difficult than usual even while you're using oxygen, contact your health care provider. This could be an early sign that you are getting sick.
- Smoking or any other type of open flame around oxygen is very dangerous and should not be permitted.
- Be careful not to trip on the oxygen tubing when walking with a tank or when in your home.
- Do not use extension cords to power the oxygen concentrator in your home. Plug it directly into the electrical outlet.

Know your medical supply company's name and phone number as they will be providing all the oxygen equipment and supplies ordered for you.

## CPAP or Bi-level Therapy

If CPAP or Bi-level Therapy is ordered by your health care provider for use during sleep, it's important to use the equipment as prescribed. This therapy will help you get a good restful sleep while keeping oxygen levels and carbon dioxide levels regulated.

Oxygen may or may not be needed with your night time therapy device; your doctor will determine those needs.

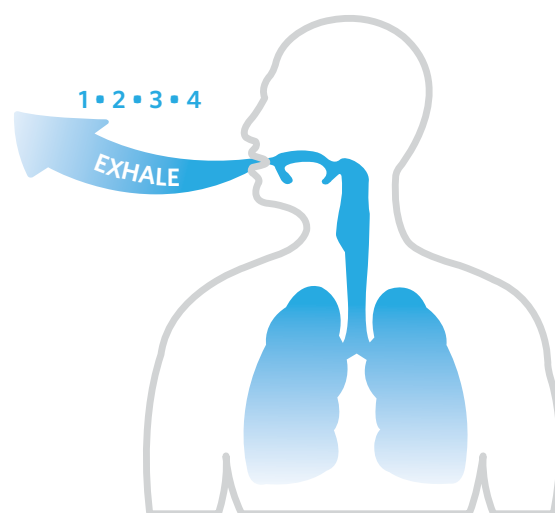


## Breathing Techniques

### Pursed-lip Breathing

Pursed-lip breathing helps to exhale air from the lungs by keeping the bronchial tubes open and to slow down breathing when short of breath.

1. Breathe in slowly through your nose, with your mouth closed.
2. Breathe out slowly through your mouth with your lips pursed like blowing out a candle. This creates back pressure in the bronchial tubes helping to keep the tubes open.
3. Breathing out should last two times as long as breathing in; this lets more air leave the lungs.



### Abdominal Breathing

Abdominal breathing helps to strengthen the diaphragm, which is the major muscle that should be used for breathing.

1. While lying on your back with a pillow under your head, bend your knees and relax your stomach.
2. Place one hand on your chest and the other on your stomach.
3. Slowly breathe in and out through your nose while making your stomach rise as you inhale and fall as you exhale.
4. Time your breathing so that your exhalation lasts twice as long as your inhalation.

## “Huff” Coughing

“Huff” coughing is a way to cough without collapsing the bronchioles from the high pressures that are caused with normal coughing.

1. Sit upright.
2. Slowly breathe in deeply through your nose and hold breath 2 – 3 seconds and exhale through pursed lips. Do this three times.
3. Inhale a normal breath with your mouth open and use your belly muscles to force a small amount of air out, making a “huff” sound as the air moves out quickly. Breathe in a smaller amount of air and “huff” again, then take a smaller breath and “huff” a third time. This will bring the mucus up from deep in the lungs.
4. Take a deeper breath and do one forced “huff” cough. This should bring up the mucus, which you can spit out.
5. Slowly breathe in through your nose and out through pursed lips to recover.

## Mucus Clearance Devices

Your doctor may order a mucus clearance device to help you clear your airways of sputum better. There are many different types of mucus clearance devices available. They work by creating resistance when breathing out through the device. This resistance creates positive pressure that helps to keep the small airways open longer and helps to loosen the mucus making it easier to cough up.

1. Place the device in your mouth with lips sealed around it.
2. Inhale deeply and hold your breath for 2 – 3 seconds.
3. Exhale actively for 3 – 4 times longer than you inhaled.
4. Repeat ten times.
5. Huff cough.

# Living with COPD

Staying physically active is important when you have COPD. Exercise helps to strengthen your muscles and helps your body to better use oxygen.

Participating in a **pulmonary rehab** program is an important part of living with COPD. Mercy’s Pulmonary Rehabilitation Program is supervised by a team including pulmonary physicians, registered respiratory therapists, registered nurses, exercise specialists and registered dietitians. The goal of the program is to educate patients and families, decreasing the number and length of hospitalizations and helps patients maintain physical and emotional well-being.

Patients who complete a pulmonary rehab program:

- Increase and improve the ability to perform normal activities.
- Improve control of shortness of breath.
- Increase and improve exercise tolerance.
- Better understand COPD.
- Incorporate healthy habits into their daily lives.

### **Eating and Drinking**

A healthy diet is important for COPD patients. It may be better to eat 5 – 6 small meals a day instead of three large ones. This will help with shortness of breath that a full stomach can cause.

Discuss a proper diet with your doctor. Some COPD patients may need more protein and a high calorie diet to gain weight. Others may need a lower calorie diet to lose weight. Avoiding salty foods helps to prevent water retention and fluid buildup that can lead to shortness of breath.

Drinking water is important to help keep mucus thin and easier to cough up. If you have heart failure along with COPD, your health care provider may limit the amount of fluids you drink so discuss the amount of water that is appropriate for you.

### **Preventing Respiratory Infections**

Preventing respiratory infections is crucial for COPD patients.

1. Wash hands often and well.
2. Stay away from anyone with a cold or the flu. Stay away from crowds if possible.
3. Get a yearly flu shot and pneumonia shot when your health care provider recommends it.
4. Avoid fumes, second hand smoke, perfumes, aerosol sprays, chemicals and air pollution.
5. Try to stay indoors on days with temperatures of extreme cold or heat and humidity as this can cause breathing problems.

### **COPD is a treatable, manageable disease.**

- Have a treatment plan for medications, diet and exercise.
- Contact a smoking cessation program if needed.
- Follow the instructions given to you by your care team.
- Know who and when to call for worsening symptoms so treatment can be increased if needed.

# Resources for Patients

## **Mercy Road to Freedom – Smoking Cessation Program**

314.251.3965

[ellen.fleming@mercy.net](mailto:ellen.fleming@mercy.net)

[nicotine.free@mercy.net](mailto:nicotine.free@mercy.net)

## **Mercy Pulmonary Rehab, St. Louis**

314.251.1015

314.525.1735

## **American Lung Association**

[lung.org](http://lung.org)

800.LUNGUSA

## **COPD Foundation**

[copdfoundation.org](http://copdfoundation.org)

866.316.COPD, ex. 2673

1140 3rd St. NE, 2nd Floor | Washington, DC 20002

