



**COPD**  
FOUNDATION®

*Take Action Today. Breathe Better Tomorrow.*

**COPD 201:**  
**BEYOND**  
THE  
**BASICS**

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*COPD Foundation, Inc.'s 2022 Health Equity Program - Health Education & Empowerment Program sponsored by AstraZeneca.*

# Treatment and Management of COPD

Now that you have a basic understanding of COPD, you may have some additional questions. In this 201 guide, we will move beyond the basics. You will find information and resources for the treatment and management of COPD, associated conditions, and even an action plan to help you avoid exacerbations.



## Medication

### Medication Delivery

Your provider may have prescribed multiple medications to help manage your COPD (see COPD 101 for common types of medications).

Each medication has a specific way that it should be taken to achieve the best results. If medications are not taken correctly, you may not receive the maximum benefit and could end up in a flare-up.

**Talk to your health care provider or pharmacist about how and when to take each medication and ask for a demonstration of the proper technique.**

**Don't be in a hurry!**

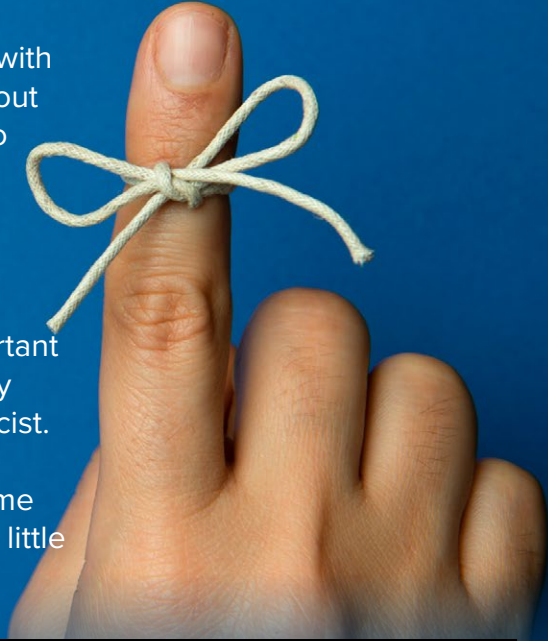
**Make sure that you are using the proper technique for taking each medication.**

# Overcoming Medication Challenges

Sometimes you may face challenges with your COPD medications. Let's talk about some common challenges and how to overcome them.

## Taking Your Medication

To get the best results, it is very important that you take your medications exactly as directed by your doctor or pharmacist. Sometimes you may have a hard time taking your medications. Here are some tips to make taking your medication a little easier.



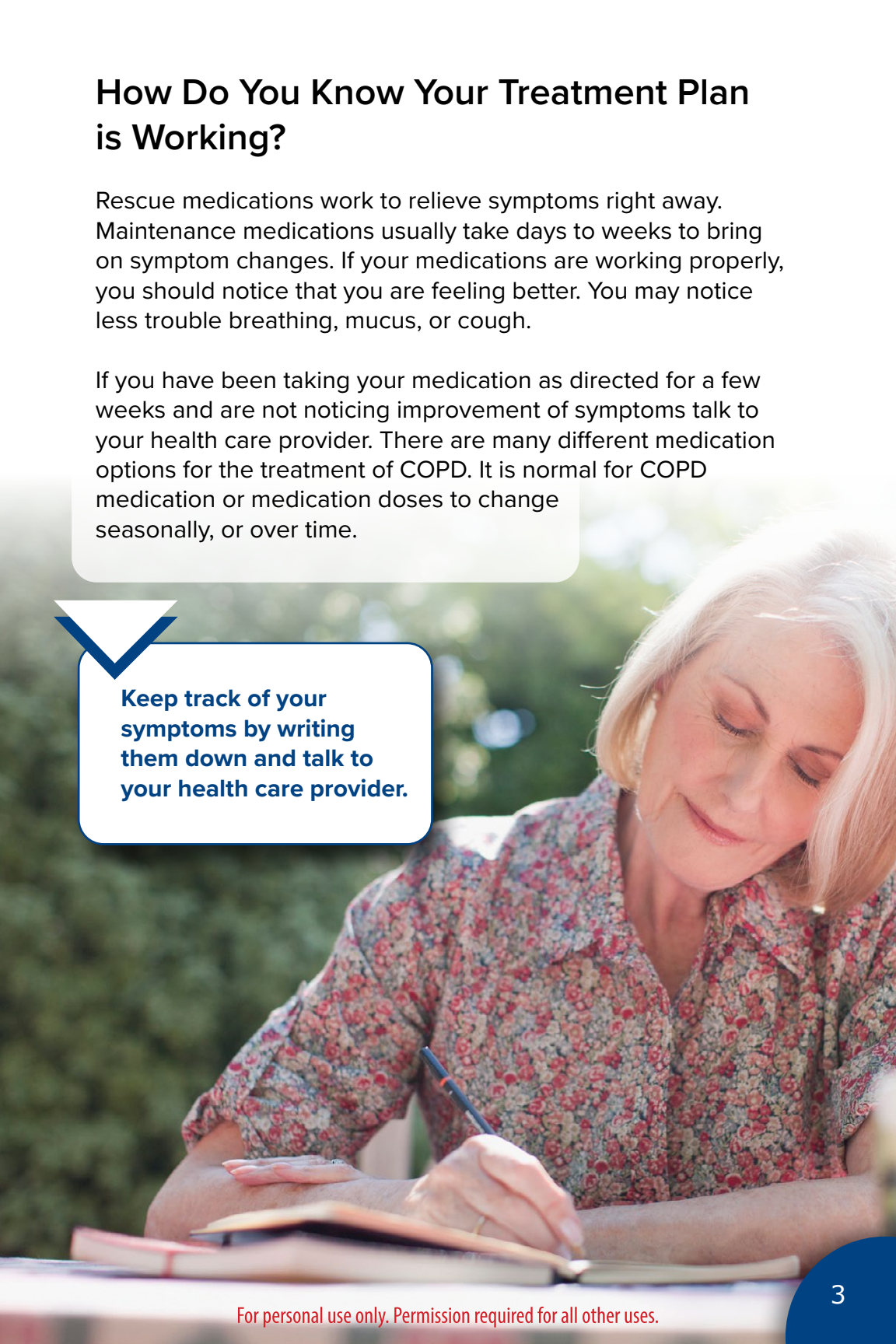
<b>If you are having trouble:</b>	<b>This may help:</b>
<b>Taking pills</b>	Placing them whole in pudding or applesauce may help make swallowing them easier. Check with your pharmacist before you crush or break any medication.
<b>Using your inhaler or nebulizer</b>	You may benefit from using a spacer or a different type of mask. Check with your health care provider for options.
<b>Remembering to take your medication</b>	Try setting a reminder on your phone or calendar, putting a note on the refrigerator, or leaving it out in a place you will be sure to see it. Having a loved one remind you is also helpful.



# How Do You Know Your Treatment Plan is Working?

Rescue medications work to relieve symptoms right away. Maintenance medications usually take days to weeks to bring on symptom changes. If your medications are working properly, you should notice that you are feeling better. You may notice less trouble breathing, mucus, or cough.

If you have been taking your medication as directed for a few weeks and are not noticing improvement of symptoms talk to your health care provider. There are many different medication options for the treatment of COPD. It is normal for COPD medication or medication doses to change seasonally, or over time.



**Keep track of your symptoms by writing them down and talk to your health care provider.**

## Side Effects

Medications help us to feel better, but some also may have unwanted (side) effects. Some can be bothersome but are not dangerous, and others may be more serious and require a medication change. If you notice changes in the way you feel after taking medication, talk to your health care provider. Do not ignore any changes in how you are feeling.

**Bronchodilators** may cause you to feel shaky or nervous for a little while after taking them. This is a common side effect but is not usually considered harmful. If it bothers you too much, talk to your doctor about your options.

**Inhaled corticosteroids** can cause thrush (a fungal infection) in your mouth or throat. Don't forget to rinse your mouth after each dose of your inhalers.

Bring your FULL medication list to each doctor's appointment for review. Some medications can interfere with the way others work which can reduce their safety and effectiveness.






Make sure that you have all of your medication filled at the same pharmacy. This helps prevent dangerous medication interactions.

Do not take more medication than is prescribed. If you take an extra dose the medication could build up in your system and cause an overdose.

## Access to Medication

The cost of taking medications can sometimes add up. If you are having trouble paying for medication, talk to your pharmacist and health care provider. Sometimes less expensive **generic medications** are available. Providers and manufacturers may also have access to coupons or discount programs.

If you are unable to pick up your medications, talk to your pharmacist about **home delivery**. Check with your insurance carrier about lower-cost **mail-order** options. Make sure that you are only ordering medications from reputable pharmacies. If you are not sure, check with your health care provider or pharmacist.



**Not taking your medication correctly or as often as prescribed can lead to flare-ups.**

**Remember, you are not alone. If you need help, it is ok to ask for it.**



**For more tips on medication use, and routine watch <https://copdf.co/medication-routine>.**

# Oxygen Therapy

Every cell in your body needs oxygen. COPD can damage your lungs, making it hard for you to get enough oxygen from the air into your bloodstream. Some people with COPD may have shortness of breath because of low oxygen levels. Supplemental (extra) oxygen may help you breathe easier.

**Oxygen therapy** is considered a medical treatment and is prescribed by your health care provider. Some people need oxygen therapy all of the time and some only need it while doing certain activities.

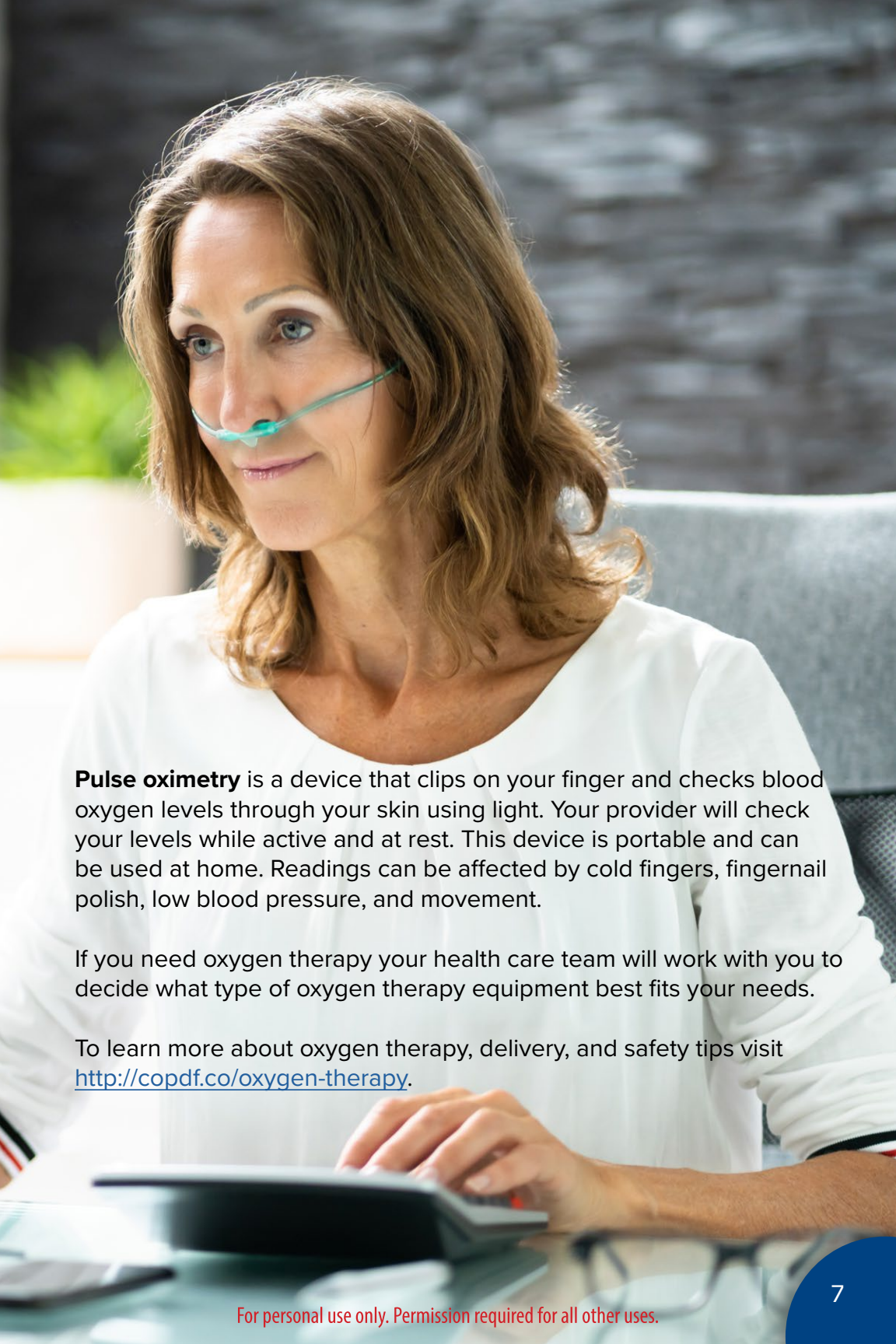
Shortness of breath can be one of the first signs that you may have low levels of oxygen. If you are having shortness of breath for any reason, talk to your health care provider. They can test your oxygen levels in a couple of ways.



**If you have been prescribed oxygen therapy, only use the recommended amount.**

**Arterial blood gas (ABG)** is a test that checks to see how well your lungs are exchanging oxygen and carbon dioxide by removing a small amount of blood from an artery in your arm. This is the most accurate way to check your oxygen levels.





**Pulse oximetry** is a device that clips on your finger and checks blood oxygen levels through your skin using light. Your provider will check your levels while active and at rest. This device is portable and can be used at home. Readings can be affected by cold fingers, fingernail polish, low blood pressure, and movement.

If you need oxygen therapy your health care team will work with you to decide what type of oxygen therapy equipment best fits your needs.

To learn more about oxygen therapy, delivery, and safety tips visit <http://copdf.co/oxygen-therapy>.

# Managing Airway Mucus

**Mucus** – often called phlegm – helps protect your lungs by trapping inhaled pollutants, bacteria, and viruses. Increased and thickened mucus is often a result of inflammation in your airways. There are several ways that you can help clear mucus, making breathing easier.

## Medication

**Expectorants** are medications that thin and loosen mucus, making it easier to clear from your airways.

## Airway Clearance Devices

**Positive expiratory pressure (PEP) therapy** uses the vibration created as you exhale into a small handheld device to loosen mucus in your lungs so you can cough it out. PEP can be used several times a day. If it becomes hard to breathe into your PEP device or if you feel short of breath when using it, stop, and contact your provider you may be experiencing a flare-up.





# Additional Therapies

There are several different coughing or breathing exercises that can help clear mucus from your lungs and make coughing more effective.

## Deep Coughing

1. Sit upright.

2. Take a couple of breaths, in through your nose and out through your mouth.



3. Take a deep breath and hold it for 2-3 seconds.



4. Breathe out in a deep cough to help force the air out of your lungs.

## Huff Coughing

1. Take a few deep breaths.

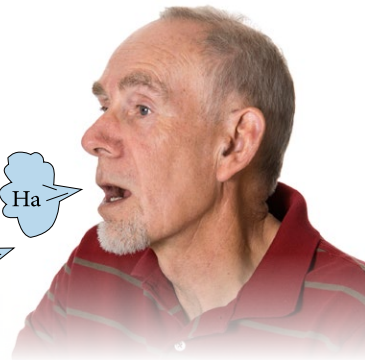
2. Take a large breath in and use your stomach muscles to exhale three short fast breaths.

3. While breathing out make a “ha, ha, ha” sound.

4. Squeeze your stomach muscles while you exhale.

5. Do some deep coughing to help bring up and remove the mucus.

To learn more about coping with airway mucus visit <https://copdf.co/mucus>.





# Exercise

Maintaining regular exercise activity is very important. If done correctly and safely, physical activity is a great way to help manage COPD and feel your best. Check with your provider to see if you need to take your short-acting bronchodilators or adjust your oxygen settings prior to activity.

**Stretching exercises** help improve flexibility and balance.

**Strength training** using body weight or resistance bands helps to increase activity tolerance.

**Endurance training** such as walking, bike riding, or stair stepping gets your heart and lungs working and helps you to do more with less breathlessness.

**Harmonicas for Health (H4H™)** is a great way to exercise your lungs and help control your breathing. It helps strengthen abdominal muscles for a more effective cough. H4H is also a terrific way to socialize and have fun. To learn more visit <https://copdf.co/harmonicas>.



**If you get dizzy, short of breath, or have chest pain, stop exercising and contact your health care provider.**

**Check with your provider to see if you need to take your short-acting bronchodilator prior to exercise or activity.**

**Talk to your health care provider before beginning any type of physical activity routine. Rest when needed.**

# Smoking Cessation

A lit cigarette is positioned vertically on the right side of the page. A thick plume of white smoke rises from the tip, swirling upwards and filling the right half of the frame. The cigarette is lit, with a glowing orange tip and a white filter. The background is dark, making the smoke stand out prominently.

Up to 80% of COPD cases can be linked to smoking.<sup>1</sup> The most important thing that you can do to slow the progress of your condition is to quit smoking!

**Never quit quitting! You may have tried to quit smoking before, but it is never too late to try again!**

There are many options available to help you quit smoking, including:

- Gum
- Patches
- Prescription medication
- Support groups

Talk to your health care provider about a program that is tailored to your specific needs. To learn more visit <https://copdf.co/QuitSmoking>.



## Tips For Quitting:

- **Keep your mouth busy:** use safe substitutes like gum or hard candy.
- **Keep your hands busy:** release nervous energy by doodling or using a stress ball.
- **Tell people you are quitting:** have people that can encourage you.
- **Distract yourself:** have a list of things that you can do when you feel the urge to smoke.
- **Understand the urge:** pay attention to the thoughts that come with the urge to smoke and replace them with positive thoughts.
- **When you feel irritable or restless:** take a few deep breaths and remind yourself why you are quitting.
- **If you are having trouble sleeping** create a sleep schedule and keep your bedroom quiet and dark.
- **If you are worried about gaining weight:** snack smart and stay active.



# Nutrition and COPD

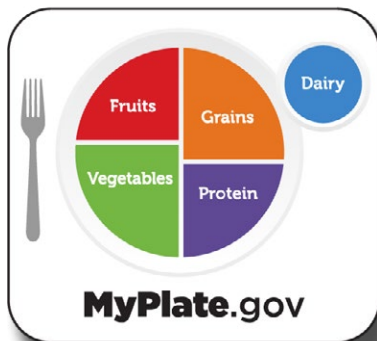
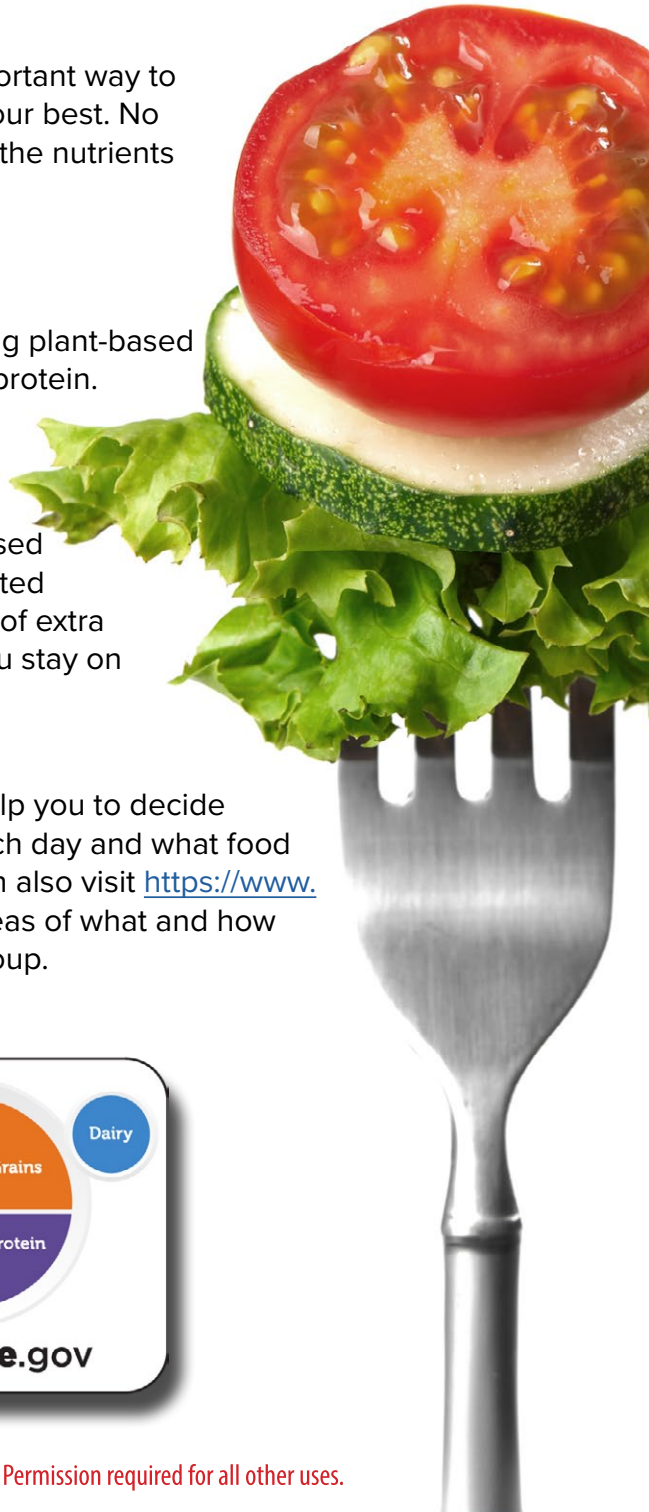
Eating balanced meals is an important way to help you stay healthy and feel your best. No single food group can supply all the nutrients that your body needs.

A healthy diet contains:

Fruits, vegetables, dairy (including plant-based sources of calcium), grains, and protein.

To be as healthy as possible, it is important to eat fresh, unprocessed foods. Eating foods low in saturated or trans fats and limiting the use of extra salt or added sugars will help you stay on the road to healthy eating.

Your health care provider can help you to decide how many calories you need each day and what food choices are best for you. You can also visit <https://www.myplate.gov/myplate-plan> for ideas of what and how much to eat within each food group.



# Did you know that the food you eat could be affecting your breathing?

The foods you eat affect your entire body and can impact your lungs.

- For those with a dairy sensitivity, eating dairy products may cause an increase in mucus production.
  - Foods high in carbohydrates can create excess carbon dioxide (a waste product that we exhale) during digestion and can make breathing more difficult.
  - Acidic foods (like tomatoes, citrus fruits or juices, garlic, and even chocolate) and spicy foods can make heartburn (acid reflux) worse and irritate your lungs.
- Foods that increase gas (such as carbonated beverages, cabbage, and broccoli) can cause bloating and can lead to feeling short of breath.





# Associated Conditions

There are other lung conditions that share symptoms/treatments with COPD.

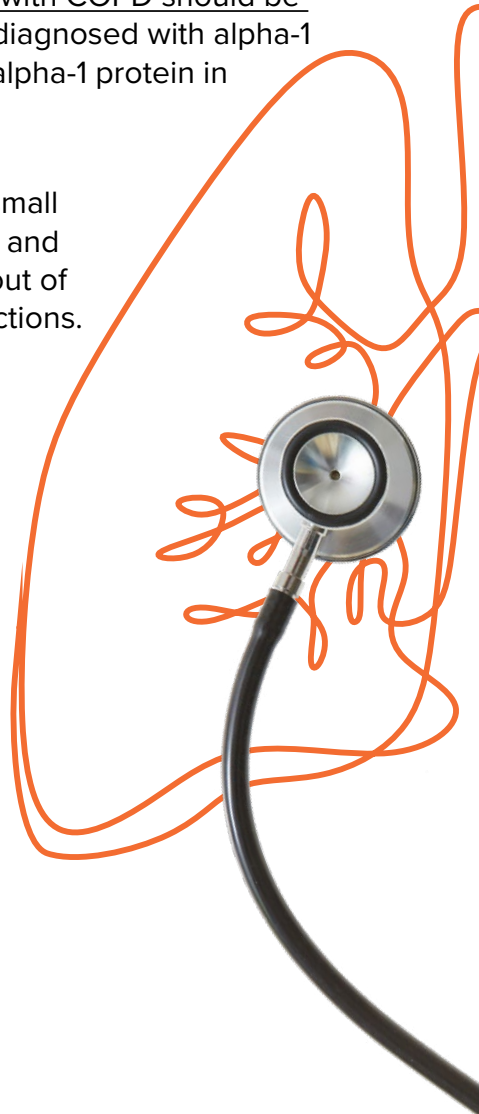
**Alpha-1 antitrypsin deficiency (alpha-1)**, also called genetic COPD, is a condition that is passed down in families. Alpha-1 can result in serious lung and/or liver disease due to low levels of alpha-1 antitrypsin (a protein) in the blood. Everyone with COPD should be tested for alpha-1. Family members of those diagnosed with alpha-1 should also be tested. Treatment to replace alpha-1 protein in the blood is available for certain patients.<sup>2</sup>

**Bronchiectasis** is a lung disease where the small airways of your lungs are thickened, scarred, and inflamed. This makes it hard to clear mucus out of the lungs and can lead to recurring lung infections. Treatment includes reduction of mucus and treating infections.

To learn more, visit <https://copdf.co/Bronch-COPD-overlap> or <https://copdf.co/Bronchiectasis>.

**Non-tuberculous mycobacteria (NTM)** are germs often found in soil and water. People with chronic lung conditions are at greater risk of developing NTM lung disease than those with healthy lungs. People with NTM are vulnerable to chronic lung infections and pneumonia. Treatment may include expectorants and multiple antibiotics.


To learn more, visit <https://copdf.co/NTM>.



# Co-Existing Conditions

People with COPD often have other chronic health conditions. Sometimes these other conditions can impact COPD.

**Diabetes** is a condition that results in high levels of glucose (sugar) in the blood. Over time, blood sugar that is not controlled can damage your organs and blood vessels, including the lungs. This damage can make COPD symptoms worse.<sup>3,4</sup>



**Gastroesophageal reflux disease (GERD)** is a chronic condition where stomach acid flows back into your esophagus. Symptoms include heartburn, coughing, chest pain, and sore throat. It is one of the most common reasons for chronic cough. Uncontrolled GERD can be a risk factor for COPD exacerbations. Some COPD medications are associated with an increased risk of GERD.<sup>5</sup>

**Heart disease** and COPD share some of the same symptoms, such as shortness of breath and being overly tired. Cigarette smoking, which causes inflammation and damage to vessels, contributes to both conditions. High blood pressure, heart failure, and other heart-related conditions increase the risk of COPD exacerbation.<sup>6</sup> Being short of breath from COPD can make your heart work harder, causing an increase in heart-related complications.

**Make sure that you are following up regularly with your health care provider.**

# Avoiding Exacerbations

When you are living with COPD, you may sometimes experience a change or increase in symptoms called an exacerbation or flare-up. Some flare-ups, if found early, may be able to be treated at home. Others may require a trip to the emergency room or a hospital stay.

## How Can I Reduce the Chance of Flare-ups?

- Wash your hands often to stop the spread of germs.
- Take all medication as directed.
- Stay up to date on vaccinations.
- Listen to your body and watch for a change in symptoms.
- Have a written plan, like the COPD Foundation's My COPD Action Plan.

### Staying as healthy as possible is important because:

- Having a moderate exacerbation greatly increases your chance of future exacerbations.<sup>7</sup>
- Those with existing heart disease or risk factors are more likely to have a heart attack or other cardiovascular event within 30 days of having an exacerbation.<sup>8</sup>

**Talk to your provider to see if medication to help prevent flare-ups is appropriate for you.**

### Contact your health care provider if:

- Your symptoms are worse or different than usual.
- Symptoms last longer than your normal day-to-day changes.
- You need more rescue medication, or it is not working as well as usual.
- There is a change in the color or amount of your mucus.
- You have a fever.



# Action Plan

You may not always be able to avoid a flare-up, but you can catch them early. Look for warning signs like increased shortness of breath or fever and take action.

Your My COPD Action Plan is a tool to help guide you and should be filled out with your health care team. You decide together what symptoms you need to pay attention to and how to handle the situation when those symptoms change. Your plan should be updated at least every six months.



My Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 My Doctor's Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Emergency Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

Please complete the section below. Bring all your medicines and inhalers along with a complete list to doctor's office visits. Think about your typical "green" day. Place one check mark in each column. In the last (blank) column write in an activity you would like to be able to do as difficult it is to do that activity now. Share this goal with your healthcare team and your family.

	CLEANING	MAKING MY BED	BRUSHING MY TEETH	BATHING/SHOWERING	WALKING	CLIMBING STAIRS	WORKING	SLEEPING
I can do this								
I can do this w/minor limitations								
I struggle to do this								
I cannot do this								



- A Normal Day for Me**
- My breathing is normal
  - My cough and mucus are normal
  - My sleeping is normal
  - My eating and appetite are normal
  - My activity level is normal

- Take Action**
- I will take all medications
  - I will keep routine doctor appointments
  - I will use oxygen as prescribed
  - I will exercise and walk as much as I can
  - I will avoid all inhalers
  - I will update my plan



- A Bad Day for Me**
- I have a low grade fever that doesn't go away
  - I have increased use of rescue medications without relief
  - I have a change in color, thickness, odor or amount of mucus
  - I am more tired than normal or have trouble sleeping
  - I have new or more ankle swelling
  - I am more breathless than normal
  - I feel like I am catching a cold

- Take Action**
- I will limit my activity
  - I will take rescue medications as prescribed
  - I will report to my doctor
  - I will start special treatments which include



- A Bad Day When I Need Help Right Away**
- I have disorientation, confusion or slurring of speech
  - I have severe shortness of breath or chest pain
  - I have a blue color around my lips or fingers
  - I am coughing up blood

- Take Action**
- I will call 911
  - I will stay in bed

\* If symptoms are not improved in one day after taking special medications, consult your doctor. The contents of My COPD Action Plan is for information purposes only and is not intended to be a substitute for professional medical advice, diagnosis or treatment.



**Red means STOP! Call your local emergency number and follow the steps in your plan.**

**Yellow means watch! A flare-up may be coming. Follow the steps you and your health care team have agreed on in your plan. Call your health care provider!**

**Green means good! Continue along your current path.**

A pull-out copy of My COPD Action Plan is included in the center of this booklet. To download a copy of My COPD Action Plan, scan this QR code.



# Pulmonary Rehabilitation

**Pulmonary rehabilitation (PR)** is an education, exercise, and support program for people with lung conditions like COPD. These classes help you understand your breathing, build stamina and learn to better manage your condition.

Potential benefits of PR include:

- Reduced shortness of breath
- Greater endurance/stamina
- Improved energy and mood

## CIRCLES Program



### Clinicians Improving the Rural COPD Landscape through Education in Self-care goals

- Is for anyone with COPD!
- Can be used on your own or with a group and provides information about
  - Goal Setting
  - Exacerbations
  - Nutrition
  - And much more!

Pulmonary rehabilitation is often covered by insurance and there are in-person and virtual options available. Reach out to your health care team if you have questions or are interested in seeing if PR is a good fit for you. To learn more visit <http://copdf.co/PulmonaryRehab>.

To learn more about CIRCLES and download the workbook and materials visit <https://copdf.co/circles>.

# Learn More

Being aware of how you are feeling and having good communication with your health care team is vital to living well with COPD.

You can learn more about how to manage your COPD by visiting [www.copdfoundation.org](http://www.copdfoundation.org).

For more information about Bronchiectasis and NTM visit [www.bronchandntm360social.org](http://www.bronchandntm360social.org).

Visit <http://copdf.co/education-materials> to download our free educational materials and learn about different aspects of living well with COPD.

## References:

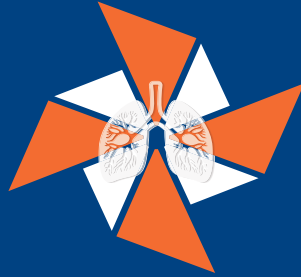
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[www.copdfoundation.org](http://www.copdfoundation.org)

COPD360 Community Support Line:  
1-866-316-COPD (2673)

Bronchiectasis and NTM Information Line:  
1-833-411-LUNG (5864)