

# **COPD** PATIENT EDUCATION

Lane Home Health | 225-658-4150

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## **COPD Introduction**

The more patients and caregivers know about their condition, the easier it can be to manage.

What I want to know or learn about COPD and my health:

#### My Goals:

While sometimes it may be tough for you to talk to the members of your healthcare team openly and honestly, the best thing you can do is not hold anything back.

It's OK to share information and be specific about what you're feeling. For instance, instead of simply telling your doctor that you're more tired than usual, give him or her a specific example, like describing how a daily walk to the mailbox is taking longer and is more exhausting.

When you're open and honest with your healthcare team, it can be easier to set goals that are right for you. Then you can work better together to measure if your particular COPD plan is working or not.

## **COPD Checklist**

Use at the beginning of education as well as throughout care and use as patient resource to determine progression or worsening of symptoms.

#### Since your last doctor's appointment or nurse visit have you:

- \_\_\_\_\_Had any changes in your cough
- \_\_\_\_\_Had a change in mucus (including the amount, thickness, color)
- \_\_\_\_\_Had changes in breathing (increase in shortness of breath or difficulty breathing)
- \_\_\_\_\_Had "flare up" or worsening of COPD symptoms
- \_\_\_\_Increased fatigue or not sleeping well
- \_\_\_\_\_Used a new antibiotic or steroid..... If so, for how many days? \_\_\_\_\_
- \_\_\_\_Cold or flu symptoms
- \_\_\_\_\_ER/hospital/urgent care visit for increased COPD symptoms or trouble breathing
- \_\_\_\_\_Increase in use of rescue inhaler..... How much of an increase? \_\_\_\_\_\_
- \_\_\_\_Smoking pattern: More\_\_\_\_\_Less\_\_\_\_\_Plan to Stop? \_\_\_\_\_
- \_\_\_\_\_ Stopped smoking completely? How long ago? \_\_\_\_\_\_

#### I am short of breath:

- \_\_\_\_\_After moderate exercise
- \_\_\_\_\_When trying to move fast or walking up an incline
- \_\_\_\_\_I walk slower than others my age because of my difficulty breathing.
- \_\_\_\_\_I stop every few minutes to catch my breath when walking
- \_\_\_\_\_I don't like to leave the house because I am too short of breath
- \_\_\_\_I am short of breath at rest

## What is COPD?

Chronic Obstructive Pulmonary Disease-this is not a single condition, but more a multitude of deterioration in the lungs. The lungs are affected by not being able to absorb oxygen as well as a healthy lung. Some causes include Emphysema and/or Chronic Bronchitis. What that means it that there is an obstruction (block) of airflow in the lungs, making it hard for the patient to breathe. Usually both Emphysema and Chronic Bronchitis occur together and cause COPD. Patients may feel like they are "hungry for air."

**Causes:**\_Long term exposure to things that irritate the lungs. Examples: Cigarette smoke, air pollution, chemical fumes, and dust.

**Emphysema:** This is when lungs elastic nature is decreased or lost, making it harder to bring in the amount of air that the body needs. Think about a balloon that has lost its ability to expand because of the elasticity....When this happens in the lungs, it produces shortness of breath. Think about it, if our lungs (picture balloon) can't expand as well because of loss of elasticity, we have to take more breaths than what we would if lungs are expanding normally and able to take in the proper amount of air.



Image from healthparkpharmacy.com

#### **Chronic Bronchitis:**

Bronchitis is an inflammation of the bronchial tubes, the airways that carry air to your lungs. It causes a cough that often brings up mucus. It can also cause shortness of breath, wheezing, a low fever, and chest tightness. There are two main types of bronchitis: acute (short case that resolves) and chronic.

Chronic bronchitis keeps coming back or never goes away all together. If you smoke, it is important to set up a plan to quit!

## **COPD Facts**

- For COPD—Prevention is better than a cure.
- COPD is one of the leading causes of death in the US...but the more we learn about the disease and how it is caused, the better chance we can learn how to prevent it.
- It is not fully reversible.

#### Symptoms:

COPD symptoms can evolve over time, impacting your day-to-day activity level and life. Managing these symptoms can be challenging, but with an effective treatment plan, you can face your COPD head on. It's important to know the symptoms you may experience.

#### **Difficulty breathing**

You may experience a shortness of breath and/or wheezing during normal activity or while at rest.

#### **Chest tightness**

You may have the feeling that something is squeezing or sitting on your chest, making it hard to breathe.

#### **Coughing up mucus**

You may experience a change in the amount or color of mucus coughed up.

#### Flare-ups: worsening of symptoms

Your symptoms (difficulty breathing, chest tightness, and coughing up mucus) may be worse than usual for several days.

#### The symptoms that affect me the most are:

## Diagnosing

#### **Blood Tests:**

Blood tests can help your doctor determine whether your symptoms are being caused by an infection or some other medical condition.

An arterial blood gas test will measure the levels of oxygen and carbon dioxide in your blood. This is one indication of how well your lungs are working. This measurement can indicate how severe your COPD is and whether you may need oxygen therapy.

Most people have no problems with blood tests. There may be some discomfort or very minor bruising where the needle is inserted, but those side effects don't last long.

#### Spirometry:

The most effective and common method for diagnosing COPD is spirometry. It's also known as a pulmonary function test or PFT. This easy, painless test measures lung function and capacity.

To perform this test, you'll exhale as forcefully as possible into a tube connected to the spirometer, a small machine. The total volume of air exhaled from your lungs is called the forced vital capacity (FVC).

The percentage of the FVC forced out in the first second is called the FEV1. FEV stands for forced expiratory volume. The maximum speed at which you empty your lungs is called the peak expiratory flow rate (PEFR).

Spirometry results help determine which type of lung disease you have and its severity. The results can be interpreted immediately.

This test is the most effective because it can determine COPD before significant symptoms appear. It can also help your doctor track the progression of COPD and monitor the effectiveness of treatment.



#### Imaging tests:

A CT scan is a type of X-ray that creates a more detailed image than a standard X-ray. Any type of X-ray that your doctor chooses will give a picture of the structures inside your chest, including your heart, lungs, and blood vessels.

Your doctor will be able to see if you have evidence of COPD. If your symptoms are being caused by another condition such as heart failure, your doctor will be able to identify that as well.

CT scans and standard X-rays are painless, but they do expose you to small amounts of radiation.

The radiation used for a CT scan is greater than that required for a typical X-ray. While the doses of radiation for each test are relatively low, they do contribute to the amount of radiation exposure you receive over your lifetime. This can slightly raise your risk of cancer.

However, new CT equipment requires less radiation to produce detailed images than previous technology.

## **Treatments**

THERE IS NO CURE...BUT TREATMENTS CAN HELP RELIEVE OF SOME SYMPTOMS. The goal in treating COPD is to help you breathe easier.

## **Medications**

**Bronchodilators** – these act to relax the muscles around you airways to let more air in your lungs, and may also help with symptoms like coughing and shortness of breath. These come in short and long acting.

Short Acting (works quickly and lasts around 4 to 6 hours) only used when you have the symptoms or in a preventative setting like before exercise. Ex. Albuterol (proair HFA, Ventolin HFA) Levalbuterol (Xopenex HFA) Ipratropium (Atrovent) Ipratropium bromide and albuterol (Combivent)

Long Acting (works for up to 12 hours). These are taken DAILY to prevent symptoms, for example: Aclidinium (Tudorza Pressair) Arformoterol (Brovana) Formoterol (Foradil, Performist) Indacaterol (Arcapta) Salmeterol (Serevent) Tiotropium (Spiriva).

**Steroids** - decrease swelling in airways. Steroids can be inhaled (Pulmicort, Flovent HFA, Flonase) as a pill form (Prednisone) as well as injection in muscle or through IV. Some medicines combine bronchodilator and inhaled steroid including Symbicort and Advair. Side effects of steroids include cough, weight gain, and mouth infections.

**Phosphodiesterase 4 Inhibitors** – Daliresp is a new drug that can help with severe COPD symptoms by decreasing swelling in the lungs and opening up the airways. Side effects include diarrhea and weight loss.

Theophylline – works like a bronchodilator but is less expensive.

**Antibiotics** – work to kill the bacteria and treat infection. Always complete full course of antibiotics for them to work effectively.

## **COPD** Treatment

## Drug therapy: Recommended drug therapy is summarized here.

stage	2	Recommended Treatment	
All		<ul> <li>Avoidance of risk factors (eg, smoking).</li> <li>Influenza vaccine annually.</li> <li>Pneumococcal polysaccharide vaccine.</li> <li>Treatment of complications.</li> </ul>	
Mild CO	PD •	Short-acting bronchodilator when needed.	
Moderate	COPD .	<ul> <li>Regular treatment with one or more bronchodilator.</li> <li>Rehabilitation.</li> </ul>	
Severe C	•	<ul> <li>Regular treatment with one or more bronchodilator.</li> <li>Inhaled corticosteroids for patients with repeated exacerbation or persistent symptoms despite bronchodilator therapy.</li> <li>Rehabilitation.</li> </ul>	
Very Severe	COPD		

## **Oxygen Therapy**

Since COPD can prevent you from getting enough air into your lungs, oxygen levels in the blood can get too low. You breathe in oxygen through a mask or prongs in your nose. You may need oxygen all the time or only when active or short of breath.

Oxygen treatment can be helpful if you have breathing problems. **Use the amount ordered by your doctor** as too much or too little oxygen may be harmful. Do NOT change the amount of oxygen you are using without first checking with your doctor. Talk to your doctor if you feel that you are not getting enough oxygen.

Your healthcare provider will pick your oxygen supply based on how much oxygen you need, and how active you are. Oxygen can be supplied the following 3 ways:

• **Compressed oxygen** holds oxygen in a metal cylinder (tank) under pressure. The tank can be set to release only the amount of oxygen you need as you breathe. Compressed

oxygen tanks are heavy, and are meant to be used when you stay mostly in one place. You may need help to move or secure it. Smaller tanks and wheeled carts are available to help you move with ease, or when you travel.

- Liquid oxygen is kept chilled inside a small, insulated case. The liquid warms and becomes a breathable gas when you need to breathe in. Liquid oxygen cases are smaller and easy to carry around. You can refill your small liquid oxygen case from a big tank kept in your home. Your oxygen delivery service will fill your large tank every 1 to 2 weeks.
- An oxygen concentrator is an electric machine that stores oxygen from the air. This machine is heavy and may come with a wheeled cart to help you move it from room to room.

#### What are the types of oxygen breathing devices?

Each device is connected to the oxygen supply with tubing. The tubing should be long enough to let you move around your house. You may need a humidifier to moisten the oxygen. This may prevent dryness in your nose, mouth, and throat. Ask your healthcare provider if you need a humidifier, and how to attach it to your oxygen supply.

- A nasal cannula is a 2-pronged plastic tube that fits inside your nostrils. Place one prong in each nostril. Loop the tubing around your ears, or attach it to your eyeglasses to keep it in place. Make sure your cannula fits you well and is comfortable.
- An oxygen mask is attached to a plastic tube and covers your nose and mouth. It is usually held in place by an elastic strap that wraps around the back of your head. You can use an oxygen mask if you need a lot of oxygen. Your healthcare provider may tell you to use a nasal cannula during the day, and a mask at night. A mask may help if your nose is dry or stuffy.
- **Transtracheal oxygen** is given through a small, flexible catheter inserted into an opening in your trachea (windpipe). A necklace holds the catheter in place.

#### How do I use oxygen safely?

• Do not use oxygen around heat or flame. Compressed oxygen can catch on fire. Keep the oxygen container 5 feet away from open flames or heaters, such as candles or hot water heaters. Do not use anything flammable, such as cleaning fluids, gasoline, or aerosol sprays near your oxygen. Keep a fire extinguisher and a phone close by in case of a fire. Tell your fire department that you have oxygen in your home if you need to call them for help.

- Do not smoke while you are using oxygen. Do not let anyone smoke around you.
- **Do not change the flow of your oxygen** unless your healthcare provider tells you to. Turn your oxygen container or concentrator off when you are not using your oxygen.
- Do not drink alcohol or take sedatives while you use oxygen. These may slow your breathing.
- **Put signs on all the doors of your house** to let visitors and emergency workers know that oxygen is in use. Tell your electric company that you have electrical medical equipment. They will put you on a priority list to fix your power quickly if it goes out.
- Follow instructions for use and maintenance of your oxygen equipment. Keep oxygen containers secured in an upright position. Oxygen containers may become damaged if they fall over. An oxygen container may cause serious injury if it breaks.

#### How do I clean my oxygen supplies?

- Wash or replace equipment parts as directed. Wash your nasal prongs with soap and water twice a week. Replace your nasal prongs every 2 weeks. Replace your tubing every 2 months, or when it becomes stiff. Change the tubing if moisture appears on the inside of the tube. Moisture can make bacteria grow, and cause infections. Change the cannula and tubing after you have a cold or the flu.
- Ask your healthcare provider how to clean your oxygen mask or transtracheal catheter. Replace the oxygen mask every 2 weeks.
- Disinfect the buttons and outside of your oxygen concentrator. Clean your air filter at least once a week with soap and water. Let it air dry. Replace the filter at least once a week. Ask your oxygen supply company to service your concentrator at least once a year. Ask your healthcare provider if you have any questions about how to clean the air filter.
- Wash your humidifier bottle with soap and warm water between each refill. Rinse and air dry the bottle before you refill it with distilled water. Do not use tap water. Disinfect the outside of the bottle and cap once the inside of the bottle has been washed.

#### What are some general tips for oxygen use?

• Keep a backup oxygen supply in case of an emergency. Always keep a backup oxygen tank that does not run on electricity in case there is a power failure. Oxygen may leak out of your container. Ask your healthcare provider if your supply has a tool to reduce wasted oxygen.

- Use gauze or water-based lubricants to help soothe your skin. Oxygen may dry out your skin, mouth, or throat. Place gauze on top of your ears or under the tubing on your cheeks if they become sore. Use water-based lubricants on your lips and nostrils if they become dry or sore. Do not use oil-based lubricants. They may be flammable.
- Order new oxygen well before your current supply runs out. Your oxygen company may not deliver on holidays. Ask your healthcare provider for help planning your oxygen needs when you travel.
- Keep the phone number of your oxygen supply company handy. Place it in an area that you see every day, such as on your fridge. Contact them if you have any problems with your supplies.

#### When should I contact my healthcare provider?

- The oxygen tubes create sores on your skin, or make you bleed.
- You have trouble sleeping because you cannot breathe well.
- You have questions or concerns about your condition or care.

#### When should I seek immediate care or call 911?

- You have a headache, your heart is beating fast, and you are shaking.
- Your breathing is shallow or slow, or more difficult than usual for you.
- Your breathing becomes fast, or it hurts to inhale.
- You have sudden chest pain.
- You feel anxious or cannot sit still.
- Your fingernails or lips turn blue.
- You are tired, confused, cannot think clearly, or faint.

## Surgery

**Bullectomy** – surgery to remove airspaces called Bullae that were created by destroyed air sac walls in attempt to impOrove flow of air in your lungs.

**Lung Volume Reduction Surgery** – removal of small pieces of the lungs that have been damaged by COPD. The goal is to remove the damaged parts to allow the healthy parts of your lungs to expand and be able to take in more oxygen.

**Lung Transplant** - This surgery has risks and you would need to take medications for the rest of your life to prevent your body from rejecting donor lung.

## **Smoking Cessation**

## Quitting Smoking is THE #1 most important step to take in the treatment of COPD!!

#### How can I prepare to stop smoking?

Nicotine is a highly addictive drug found in cigarettes. Withdrawal symptoms can happen when you stop smoking and make it hard to quit, including anxiety, depression, irritability, trouble sleeping, and increased appetite. You increase your chances of success if you prepare to quit:

- Set a quit date. Pick a date that is within the next 2 weeks. Do not pick a day that you think may be stressful or busy. Write down the day or circle it on your calendar.
- **Tell friends and family that you plan to quit.** Explain that you may have withdrawal symptoms when you try to quit. Ask them to support you. They may be able to encourage you and help reduce your stress to make it easier for you to quit.
- Make a list of your reasons for quitting. Put the list somewhere you will see it every day, such as your refrigerator. You can look at the list when you have a craving.
- Remove all tobacco and nicotine products from your home, car, and workplace. Also, remove anything else that will tempt you to smoke, such as lighters, matches, or ashtrays. Clean your car, home, and places at work that smell like smoke. The smell of smoke can trigger a craving.
- Identify triggers that make you want to smoke. This may include activities, feelings, or people. Also write down one way you can deal with each of your triggers. For example, if you want to smoke as soon as you wake up, plan another activity during this time, such as exercise.
- Make a plan for how you will quit. Learn about the tools that can help you quit, such as medicine, counseling, or nicotine replacement therapy. Choose at least two options to help you quit.

#### What are some tools to help me stop smoking?

• **Counseling** from a trained healthcare provider can provide you with support and skills to quit smoking. The provider will also teach you to manage your withdrawal symptoms and cravings. You may receive counseling from one counselor, in group therapy, or through phone therapy called a quit line.

- Nicotine replacement therapy (NRT) such as nicotine patches, gum, or lozenges may help reduce your nicotine cravings. You may get these without a doctor's order. Do not use e-cigarettes or smokeless tobacco in place of cigarettes or to help you quit. They still contain nicotine.
- **Prescription medicines** such as nasal sprays or nicotine inhalers may help reduce your withdrawal symptoms. Other medicines may also be used to reduce your urge to smoke. Ask your healthcare provider about these medicines. You may need to start certain medicines two weeks before your quit date for them to work well.
- **Hypnosis** is a practice that helps guide you through thoughts and feelings. Hypnosis may help decrease your cravings and make you more willing to quit.
- Acupuncture therapy uses very thin needles to balance energy channels in the body. This is thought to help decrease cravings and symptoms of nicotine withdrawal.
- **Support groups** let you talk to others who are trying to quit or have already quit. It may be helpful to speak with others about how they quit.

#### How can I manage my cravings?

- Avoid situations, people, and places that tempt you to smoke. Go to nonsmoking places, such as libraries or restaurants. Understand what tempts you and try to avoid these things.
- Keep your hands busy. Hold things such as a stress ball or pen.
- **Put candy or toothpicks in your mouth.** Keep lollipops, sugarless gum, or toothpicks with you at all times.
- **Do not have alcohol or caffeine.** These drinks may tempt you to smoke. Drink healthy liquids such as water or juice instead.
- **Reward yourself when you resist your cravings.** Rewards will motivate you and help you stay positive.
- **Do an activity that distracts you from your craving.** Examples include going for a walk, exercising, or cleaning.

#### What should I know about weight gain after I quit?

You may gain a few pounds after you quit smoking. It is healthier for you to gain a few pounds than to continue to smoke. The following can help you prevent weight gain:

- Eat healthy foods. These include fruits, vegetables, whole-grain breads, low-fat dairy products, beans, lean meats, and fish. Eat healthy snacks, such as low-fat yogurt, if you get hungry between meals.
- **Drink water before, during, and between meals.** This will make your stomach feel full and help prevent you from overeating. Ask your healthcare provider how much liquid to drink each day and which liquids are best for you.
- **Exercise.** Take a walk or do some kind of exercise every day. Ask your healthcare provider what exercise is right for you. This may help reduce your cravings and reduce stress.

## Cardiovascular Institute of the South has a FREE smoking cessation program. You can start by calling to ask for information about their "Commit to Quit" program at 225-308-0247.

Other Resources:

Smokefree.gov, Phone: 1-800-784-8669, <u>www.smokefree.gov</u> Helpguide.org - <u>https://www.helpguide.org/articles/addictions/how-to-quit-smoking.htm</u>

What treatments are prescribed to me?

I would like more information on the following treatments:

## **STAGES OF COPD**

**#1. MILD COPD** -The first of the COPD stages is referred to as the mild stage, and many people are not experiencing symptoms at this point other than occasional shortness of breath.

**#2. MODERATE COUGH** -The moderate stage of COPD, and people who are in this stage may begin experiencing shortness of breath along with cough much more frequently.

**#3. SEVERE COPD** - Also referred to as the severe stage, and during this stage a person's quality of life may be greatly impacted by the chronic coughing and shortness of breath they are likely experiencing.

**#4. VERY SEVERE COPD** -The last of the COPD stages, and at this point people normally have problems breathing at all times during the day, and their lives may be at risk due to respiratory failure.

In addition to difficulty breathing, people with COPD might begin to notice other health problems that may have been brought on or aggravated by their COPD. Some of these other health problems include high blood pressure, heart problems, and frequent respiratory infections. People with COPD are also often depressed because their breathing difficulty might keep them from participating in activities they used to enjoy. These additional problems could occur at any point during the four COPD stages, but may be more likely to occur during the severe and very severe stages. I am in Stage \_\_\_\_\_\_



## How can I manage my symptoms?

Pursed Lip Breathing: Practice so that you know how to do it when needed!!



Image from top10remedies.com

#### **Help to Bring Up Mucus:**

- **Deep Coughing:** Start by taking a deep breath. Hold the breath for 2-3 seconds. Use your stomach muscles to forcefully expel the air. Avoid a hacking cough or merely clearing the throat. A deep cough is less tiring and more effective in clearing mucus out of the lungs.
- Huff Coughing: Huff coughing or huffing is an alternative to deep coughing if you have trouble clearing your mucus. Take a breath that is slightly deeper than normal. Use your stomach muscles to make a series of 3 rapid exhalations with the airway open, making a "ha, ha, ha" sound. Follow this by controlled diaphragmatic breathing and a deep cough if you feel mucus moving.
- **Postural Drainage:** The best time to do postural drainage is either before a meal or an hour and a half after a meal, when your stomach is emptiest. Use one of the following positions:
  - Sitting
  - Lying on your back, stomach, or side
  - Sitting or lying with your head flat, up, or down

- Stay in the position for as long as your provider instructed (at least 5 minutes).
   Wear comfortable clothes and use pillows to get as comfortable as possible.
   Repeat the position as often as instructed.
- Breathe in slowly through your nose, and then out through your mouth.
   Breathing out should take about twice as long as breathing in
- **Percussion or Vibration:** Your doctor may also recommend doing percussion or vibration.

Percussion helps break up thick fluids in the lungs. Either you or someone else claps a hand on your ribs while you are lying down. You can do this with or without clothing on your chest:

- Form a cup shape with your hand and wrist.
- Clap your hand and wrist against your chest (or have someone clap your back, if your doctor tells you to).
- You should hear a hollow or popping sound, not a slapping sound.
- DO NOT clap so hard that it hurts.

Vibration is like percussion, but with a flat hand that gently shakes your ribs:

- Take a deep breath, and then blow out hard.
- With a flat hand, gently shake your ribs.
- Your provider will show you how to do this the right way.

Do percussion or vibration for 5 to 7 minutes in each area of the chest. Do this on all of the areas of your chest or back that your doctor tells you to. When you finish, take a deep breath and cough. This helps bring up any phlegm, which you can then spit out.

## **Energy Conservation Techniques**

#### Why are energy conservation techniques important?

Energy conservation techniques are used to decrease dyspnea and the feeling that you are using up oxygen. They can also decrease the production of carbon dioxide and lower your heart rate. These techniques decrease the energy you use when you do activities of daily living (ADLs). Pulmonary rehabilitation will help you learn more about energy conservation techniques. Ask your healthcare provider if pulmonary rehabilitation is right for you.

#### What are some ways I can conserve my energy?

• Rest before difficult activities. Stop if you become short of breath or fatigued.

- Write a plan for your daily and weekly activities. Make sure the biggest energyconsuming activities are spread throughout the week. For example, do not shop for groceries and vacuum on the same day. It is okay if you do not complete the entire activity or plan.
- Make a note of the times you have the most energy. Schedule the most difficult activity during that time. If you have more energy in the morning, you may want to cook all the meals for the day then.
- Schedule relaxation time. Relaxation can help you restore energy.
- Ask friends and family members to do some activities for you. Your healthcare provider may be able to assist you with finding community services to help.
- Lower the number of trips up and down stairs. Put a commode downstairs if your bathroom is upstairs. Put a commode upstairs if your bathroom is downstairs.

#### How can I conserve energy as I do my personal care?

Perform as much personal care as you can while you are sitting down. You use more energy if you stand to do these activities.

- Brush your teeth, wash your face, shave, and put on makeup while you are sitting down. Support your arms on the sink area while you do these and similar activities.
- Use a shower chair to sit while you shower.
- Put on a robe after you shower so you do not have to use energy to dry yourself. You may need to rest after your shower, before you put on your clothes.
- Elevate your toilet seat. You may also need to elevate the chairs in your home. You use lots of energy getting to a standing position.
- Have grab bars installed in your bathroom. Grab bars can help you stand and help prevent falls.
- Use assistive items for personal care, such as a long-handled brush and shoe horn.
- Wear slip-on shoes so you do not have to bend over to tie them.

#### How can I conserve energy as I do my household chores?

- Put items on shelves that are at eye or waist level. It takes more energy to reach over your head or bend at your waist.
- Use a dish drain rack instead of hand drying dishes.
- Sit on a tall stool in the kitchen while you cook or wash dishes.
- Do not carry or lift items. Push, pull, or slide them. If you have to lift and carry, use your legs to lift. Carry items close to your body.

What can I do to feel more connected to others? Chronic lung disease can make you feel isolated. You may feel too tired to be active with other people. Schedule some social time every week. You may feel more connected and less isolated if you socialize with family and friends. It may only be for ½ hour. Invite friends or family over to your house, or talk to them on the telephone. You may want to join a support group of people who have a chronic lung disease.

## **COPD** and **My** Diet

If you have chronic obstructive pulmonary disease (COPD), diet demands may be greater for you than for other people. Your energy may be limited, making it harder to prepare and eat meals. Or you may take medications or experience depression that can reduce your appetite.

But eating healthy foods and maintaining a healthy weight is especially important for you. Learn why -- and what you can do to stay healthier.

#### **3** Reasons Why a Healthy COPD Diet Is Important

Did you know that the respiratory muscles in people with COPD burn 10 times the calories of other people? That's because it takes so much energy just to breathe.

If you have COPD, a healthy diet can help manage your condition and help you feel better. Here are three reasons why:

1. If you don't get enough calories and are underweight:

- You may be more likely to get an infection.
- You may become weak and tired more often.
- The muscles that control your breathing may weaken.
- 2. If you're overweight:
  - Your heart and lungs must work harder.
  - Your body may demand more oxygen.
  - Your breathing may become more difficult, especially if you carry weight around your middle.
- 3. When you have COPD, a diet full of healthy foods:
  - Helps you maintain a healthy weight
  - Provides your body the energy it needs
  - Supplies enough calories, keeping breathing and other muscles strong
  - Helps your body fight infections by strengthening your immune system

When you have COPD, you may need to make some diet changes. But always do this under the guidance of a registered dietitian or other health care provider who can prepare a nutrition action plan tailored to your exact needs.

## **Diet Guidelines to Get You Started**

**Eat a variety of healthy foods** such as vegetables, fruits, whole grains, dairy products, and proteins. High-fiber foods are especially important. They help with digestion, control blood sugar levels, reduce cholesterol levels, and can help control weight.

**Drink plenty of water.** Not only does it help prevent gas when you eat high-fiber foods, but water helps thin mucus, so you can cough it up easier. Most people need six to eight eight-ounce glasses of water a day. Check with your health care provider, though, because some health conditions require that you limit your fluids.

Choose non-caffeinated and non-carbonated beverages. Limit alcohol, which can interact with medications, can slow breathing, and may make it harder to cough up mucus.

**Ask about certain foods.** Certain nutrients, such as omega-3 fatty acids, may help reduce inflammation and improve lung function. Ask your doctor or other health care provider if increasing your intake is appropriate for you.

**Avoid salt.** Salt (sodium) makes your body retain water, which increases swelling. This makes breathing more difficult. To reduce your salt intake, try to:

- Read food labels and choose foods with fewer than 300 milligrams of sodium per serving.
- Use no-salt spices.
- Avoid adding salt while cooking.

**Avoid foods that cause gas or bloating.** Everyone knows how uncomfortable that full-stomach feeling is. And it may make breathing more difficult, too. To minimize gas or bloating, avoid foods and drinks such as:

- Beans, broccoli, Brussels sprouts, cabbage, and cauliflower
- Carbonated beverages
- Fried, spicy, or greasy foods

Avoid empty foods. Junk foods such as chips and candy don't provide any nutritional value.

**If you need to gain weight** choose more high-protein, high-calorie foods such as cheese, peanut butter, eggs, milk, and yogurt. Remember to ask about nutritional supplements to increase the number of calories and nutrients you get each day.

# If you have COPD, mealtime can feel like a chore. Try these tips for easier eating:

#### **Conserve energy:**

- Choose foods that are easier to prepare.
- Get help with meal preparation. Ask your family or friends for help, or check with local government agencies or church organizations about meal deliveries. Many are low-cost, and some are free.
- Freeze extra portions and take them out when you're extra tired.
- Eat your main meals earlier in the day when you have extra energy.

#### Breathe easier at mealtime:

- Eat sitting up, not lying down. This prevents extra pressure on your lungs.
- If you use continuous oxygen, wear your cannula while eating to provide the energy your body needs for eating and digestion.
- Take small bites, chew slowly, and breathe deeply while chewing.
- Choose easy-to-chew foods.
- Eat smaller, more frequent meals.
- Drink fluids at the end of the meal so you don't fill up too fast.

#### Stimulate your appetite:

- Keep healthy foods visible and within easy reach.
- Eat a variety of healthy foods, especially your favorites.
- Use colorful place settings or play background music while eating.
- Eat with other people as often as you can.
- Walk or do light exercises.

#### To help monitor and maintain a healthy weight if you have COPD:

- Weigh yourself once or twice a week, or as often as your doctor suggests. If you take water pills, called diuretics, you should weigh yourself every day.
- Contact your doctor if you gain or lose 2 pounds in one day or 5 pounds in one week.
- Make changes in your diet under the guidance of a health care provider.
- If you need to lose weight, ask about special exercises that may also strengthen your chest muscles.

## **Exacerbation of COPD**

COPD Exacerbations happen when your usual symptoms flare up and become much worse than usual. Many exacerbations are caused by a viral or bacterial lung infection. Air pollution can also be a trigger. However, in about one-third of severe exacerbations, the cause cannot be identified.

COPD Exacerbations may last for days or weeks and may need to be treated with antibiotics, oral steroids, and even hospitalization. They're different for everyone, but one thing that's the same in most exacerbations is it happens suddenly! When you experience an exacerbation, you may not even realize it's happening at first. The following worsening symptoms may be the first sign:

- •Cough
- •A change in the color or amount of phlegm
- •An increase in shortness of breath

If you think you are experiencing an exacerbation, you should call your healthcare provider right away. If you think you have had an exacerbation in the past, you should discuss it with your healthcare provider.

#### Triggers may be:

**Temperature Extremes** - Stay inside when very hot outside, protect nose and mouth by covering when it is cold, and use a humidifier to avoid dry air.

**Air pollution** - When possible, avoid pet dander, dust particles, wear mask when dusting/working outdoors/vacuuming/cleaning with chemicals.

**Change filters regularly** - including ac/heat, oxygen devices, and CPAP devices.

Smoke - Stop Smoking!!! Avoid second hand smoke; avoid areas where fires are burning

**Strong Fumes** - Avoid perfumes. It is OK to ask others who are around you not to wear perfume or cologne if it is one of your triggers. Avoid paint fumes, gasoline, strong candles, strong air fresheners.

High Altitude - talk to your doctor before making travel plans.

**Stress** - Ask for help when you need it!! Learn relaxation techniques and talk to your physician about managing anxiety and depression.

#### Air Quality -

Color Code	AQI Value	Actions to Protect Your Health
Green	Good (0-50)	None.
Yellow	Moderate (51-100)	Unusually sensitive people should reduce pro- longed or heavy exertion outdoors.
Orange	Unhealthy for Sensitive Groups (101-150)	Sensitive groups should reduce prolonged or heavy exertion outdoors: People with heart and lung disease Children and older adults People that are active outdoors
Red	Unhealthy (151-200)	Sensitive groups should avoid prolonged or heavy exertion outdoors. Everyone should reduce prolonged or heavy exertion outdoors.
Purple	Very Unhealthy (201-300)	Sensitive groups should avoid all physical activity outdoors. Everyone should avoid prolonged or heavy exertion outdoors.

Image source: macknc.gov

### Prevention of an exacerbation and EARLY recognition is key!!

You can help decrease chances of exacerbation by:

• Avoiding triggers – especially if you know your most likely triggers

#### My known triggers: \_\_\_\_\_

• Get a flu shot and ask if a pneumonia vaccination is recommended

My vaccine dates: \_\_\_\_\_

- Stay away from anyone with the flu, cold, or sore throat
- Wash your hands frequently with soap and water!

## **COPD Final Stages**

In the final stages of COPD, or chronic obstructive pulmonary disease, airflow is severely limited and a person can become very short of breath after simply walking a few feet. In severe cases, many complications can arise from COPD, including respiratory failure and even heart failure on the right side.

The final stage of COPD is called severe COPD. This means that a breathing test will show severe limitations on airflow, and the sufferer is winded after very little activity.

Stage III is determined when between 30-50% of normal breathing can be found, but the sufferer is normally very tired and short of breath. The patient also will need extra treatments and sometimes hospitalization due to the many exacerbations from daily life.

Stage IV COPD is called end-stage or very severe COPD. In patients of this category, less than 30% of normal airflow is found, and being short of breath while at rest is more common than not.



The goal of treating COPD at this time is management and relieving symptoms with as little side effects as possible, slow down the progression, and improve daily life, as well as attempt to prevent complications. There is no cure at this time. Treatments include medications, oxygen, pulmonary rehab and sometimes surgery.

## Life Expectancy with COPD

Life expectancy is not a topic that many people want to discuss, but if you or a family member has COPD, most likely it has been a thought. When people understand the possible outcomes and how the disease progresses, it can help motivate people to make necessary changes to improve their quality of life.

While there are no strict guidelines for predicting life expectancy among people with COPD, the disease is progressive and it does shorten a patient's lifespan. The impact of COPD on life expectancy depends on many factors including the stage of the disease, whether there are other conditions like heart disease, and whether the patient continues to smoke. In the end, the average life expectancy of persons with COPD is just that—an average. You can often exceed expectations by taking charge and addressing those factors that you can change.

## **End-Stage COPD**

End-stage COPD is marked by severe shortness of breath, even when at rest. At this stage, medications typically don't work as well as they had in the past. Everyday tasks will leave you more breathless. In fact, simple tasks, such as taking a shower, making the bed or cooking a small meal, may have you feeling exhausted and completely out of breath.

End-stage COPD also means increased visits to the emergency department or hospitalizations for breathing complications, lung infections, or respiratory failure.

Pulmonary hypertension is also common in end-stage COPD, which can lead to heart failure. You may experience an increased heart rate of more than 100 beats per minute. Another symptom of end-stage COPD is ongoing weight loss.

Oxygen therapy is usually needed during end-stage COPD.

## **Palliative Care**

Palliative care or hospice care can greatly enhance your life when you're living with end-stage COPD. A common misconception about palliative care is that it's for someone who will be passing away soon. This isn't always the case.

Instead, palliative care involves identifying treatments that can enhance your quality of life and help caregivers provide you with more effective care. The main goal of palliative and hospice care is to ease your pain and control your symptoms as much as possible.

You'll work with a team of doctors and nurses in planning your treatment goals and caring for your physical and emotional health as much as possible.

Ask your doctor and insurance company for information about palliative care options if you are interested.

### **Emotional and Mental Health**

An estimated 40 percent of people with COPD will be affected by depression, compared with just 15 percent of the rest of the population. If you have COPD, you are also more likely to have problems with anxiety.

The symptoms of COPD can naturally lead to feelings of sadness or loss. However, in some people, those feelings develop into clinical depression. Getting treatment for depression is important for your mental, emotional, and physical health. When you're depressed, you may not take proper care of yourself or follow your treatment plan, which can make your COPD worse.

The symptoms of depression can overlap with symptoms of COPD. This can make it tricky to recognize the symptoms of depression. Paying attention to your feelings and mental state can help you and your doctor tell the difference. All of us have a bad day now and then, but when you're depressed you may often feel:

- Irritable or angry with others
- Sad for weeks at a time or crying a lot
- Hopeless or even suicidal
- Overly sensitive to criticism
- Guilty or worthless

#### Other common symptoms of depression include:

- Trouble falling asleep or staying asleep
- Trouble concentrating or making decisions
- Lack of interest in people or activities you once enjoyed
- Lethargy and lack of motivation
- Increased or decreased appetite
- Inability to enjoy yourself or find humor in things

There are a variety of treatments available to help you cope with COPD and depression. Please discuss options with your physician. You are not alone!



References: COPD.org; COPD.com; Medlineplus.gov/copd.html; Cystic Fibrosis Foundation website. An introduction to postural drainage and percussion. www.cff.org/PDF-Archive/Introduction-to-Postural-Drainage-and-Pecussion. Updated 2012. Accessed June 18, 2018; Lunginstitute.com; Healthline.com – COPD tests and diagnosis; Truven care notes- Using Oxygen at home; Truven Care Notes – How to Stop Smoking; Truven Care Notes – Energy Conserving Techniques; https://www.wisegeek.com/what-are-the-copd-stages.htm; Cleveland Clinic: "Nutritional Guidelines for People with COPD." American Association for Respiratory Care: "Eating Right: Tips for the COPD Patient." National Institutes of Health: "A Meaty, Salty, Starchy Diet May Impact Chronic Lung Disease." Medscape: "Omega-3 Fatty Acids May Improve Lung Function in COPD." University of Alabama: "Nutrition and COPD."; https://www.healthguideinfo.com/infectious-disease/p52255/.



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