Caring for Yourself or a Family Member

Living Well with COPD

This information is part of the MaineHealth Living Well with COPD patient education book.

SECTION 6

Using Oxygen to Live Well with COPD

In This Section:

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This book was created for patients and their families to help them manage their lung disease.

Your doctor or nurse chose this section because they felt it would be most helpful for you.

There are 10 sections in the COPD book and a list of definitions in the glossary section. Share this information with family, friends and those who help care for you.
Using Oxygen to Live Well with COPD

Being told you need to use oxygen can be confusing and scary. You may be uncomfortable and self-conscious with having to use the oxygen tanks or other devices. But using oxygen will help you breathe easier and have more energy.
What Is Oxygen?

Oxygen comes from the air we breathe. Every part of your body needs oxygen to work. When our lungs are damaged, it can be harder to get oxygen from the air we breathe.

Why would I need extra oxygen?

When the oxygen in your blood is low, your heart has to work harder. You may have trouble breathing, and you may breathe faster. Your doctor, respiratory therapist or nurse may do a blood test or measure the oxygen in your blood with a pulse oximeter. These tests will help your doctor decide if the oxygen in your blood is too low and if you need extra oxygen. Talk to your doctor or nurse if you:

- have trouble breathing; especially when you are trying to move around
- have trouble remembering things
- feel tired after a good night’s sleep
- feel like you have no energy
- have headaches when you wake up
- have trouble sitting still
- feel irritable or like you are always in a bad mood
- have swelling in your ankles

When to use your oxygen

Your doctor or nurse will recommend how much oxygen to use and when to use it. Ask your doctor if buying your own pulse oximeter would be helpful to you.
Oxygen Supply

There are many different kinds of oxygen equipment. Ask your doctor, respiratory therapist or nurse which device is best for you. You will need a device for home and a portable device to use when you are outside your home. You will also need to choose a company to supply your oxygen and oxygen devices.

Questions you should ask when choosing an oxygen supply company:

☐ Do you accept my insurance? What is covered by my insurance? ________________________

☐ Are you a national company? Will you help with travel plans? ________________________

☐ Where is your office? What hours are you open? ________________________

☐ What types of oxygen devices do you provide? ________________________

☐ How often will deliveries be made to my home? ________________________

☐ How often will the equipment be checked? ________________________

☐ How soon can you replace equipment that is not working? ________________________

☐ Is someone available 24 hours a day if I need help? ________________________

☐ How long will it take to call me back when I call with a question or I need help? ________________________

☐ How often will a respiratory therapist come to my home? ________________________
Oxygen Devices

Concentrators
An oxygen concentrator is a machine that runs on electricity. This means it needs to be plugged into an outlet. Air is pulled into the concentrator, where it is filtered and becomes only oxygen. A 25- to 50-foot tube attaches to the concentrator so that you can move around your house while you are using it. Because the concentrator runs on electricity, your oxygen company will supply you with oxygen tanks to use in case you lose power.

Portable concentrators
You can use a portable concentrator when you are not at home. These concentrators are smaller and lighter and run off a rechargeable battery. There are many types of portable concentrators. Your doctor or respiratory therapist can help you choose the best device for your needs.

Gas cylinders
Gas cylinders, also called compressed gas, are steel or aluminum tanks filled with pure oxygen. Tanks come in different sizes. Smaller tanks can be carried in an over-the-shoulder carrier or backpack-style bag.

Smaller tanks weighing 1-8 pounds are used when you are away from your home. The tank size that is best for you will depend on the amount of oxygen you need.

Larger tanks can be used as a backup for a concentrator.

It is important to secure tanks in a holder to keep them from falling over or rolling around in your home or in the car.

Filling your oxygen cylinders at home
You can use a home oxygen system to refill your portable oxygen tanks at home so that you do not need to store as many tanks in your home. Your oxygen supply company will help decide if this is a system that is right for you.

Liquid oxygen
Liquid oxygen is oxygen in a liquid form that comes in a large tank. Smaller portable tanks can be filled from the larger tank and used when you go out. Liquid oxygen is usually ordered for people who need higher amounts of oxygen. Your doctor may order liquid oxygen if he feels this is the best choice for you.
Using Oxygen

How will the oxygen get into my body?

Oxygen flows from your concentrator or tank through tubing called a cannula. Your oxygen supply company will provide you with cannulas and extension tubing. You should change your cannula every 1-2 weeks. Do not use extension tubing longer than 50 feet.

Oxygen delivery systems provide oxygen in either a continuous flow or a pulse dose. With a continuous flow, the oxygen is running constantly through the tubing into your nose and throat.

With a pulse dose, oxygen flows when you breathe in through your nose, and then stops flowing as you breathe out. Pulse dose devices are sometimes called conserving devices because they allow the oxygen in the portable tank to last longer. Pulse dose devices do not work well for everyone. Ask your doctor or respiratory therapist which device is right for you.

Safety

Oxygen is very flammable. Notify your electric company and fire department if you use oxygen.

Follow these safety tips:

- Never smoke around oxygen devices or while wearing oxygen.
- Never allow others to smoke in your home or around you.
- Keep your oxygen cylinders at least 6 feet away from gas stoves, fireplaces, woodstoves, candles and open flames.
- Do not use an electric razor while using oxygen.
- Do not use petroleum jelly, oils or grease on or near equipment or tubing.
- Always tie or place oxygen tanks in a holder so they won't fall over.
Traveling with Oxygen

Can I travel with oxygen?

Traveling with oxygen either by car or airplane takes planning, but it can be done.

Traveling by car

If you are driving, make sure to bring extra tanks and supplies to last throughout the trip. Bring extra tubing, batteries and chargers. If you will be gone for several days or weeks, oxygen supplies can be delivered to where you are traveling. Contact your oxygen supplier for information.

Traveling by plane

If you are flying, you must contact the airlines at least 4 weeks before leaving. The airline will tell you what information they need before you fly. Oxygen tanks are not allowed on the airplane. Most portable concentrators are allowed. If you do not have a portable concentrator, your oxygen supply company can provide one to you for a fee. Make sure you have extra batteries and your charger. Be sure to charge your concentrator while you are waiting to board the plane.

Oxygen supply companies may not allow you to take their concentrator out of the country. If you are traveling outside of the country, you can contact the Airline Oxygen Council of America for help at www.AirlineOxygenCouncil.org.
Travel checklist

Traveling with oxygen takes a little more planning. Use this checklist to make the most of your trip!

☐ **Ask your doctor before traveling.**
Check with your doctor to see if you are well enough to travel, especially if you've been hospitalized recently.

☐ **Contact your travel company.**
Call your airline, cruise ship or bus company at least 4 weeks before departure to check for any special requirements.

☐ **Call the airline to make sure your portable oxygen concentrator is on the approved list.**

☐ **Complete the paperwork.**
You may need a letter from your doctor that lists all of your medicines, including oxygen.

☐ **Take enough medicine to last the entire trip and extra days for possible delays.**
Remember to pack all medicine and supplies in your carry-on bag and keep a list of medicines with you at all times.

☐ **Take a copy of your oxygen prescription.**
You will need to show the prescription for your oxygen to travel personnel, so be sure to carry it with you.

☐ **Contact your oxygen supply company at least 4 weeks before leaving for your trip.**
Tell them where you are going so they can assist in arranging oxygen when you reach your destination.

☐ **Know how to use your portable oxygen concentrator.**
Try operating on all types of power: AC, DC, battery. Test how long your batteries last at your dosage or liter flow level. Pack power cords and batteries for all your electrical equipment.

☐ **Confirm arrangements with your oxygen supply company at least 24 hours before leaving.**

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**Take this contact information with you:**

Your doctor:
__________________________________________________________  Phone # __________________________

Your oxygen supply company:
__________________________________________________________  Phone # __________________________

Your pharmacy:
__________________________________________________________  Phone # __________________________

Person to contact in case of emergency:
__________________________________________________________  Phone # __________________________
Glossary

Advance directives (sometimes called living wills): forms that you fill out once you decide what is important to you if you should get into a health crisis

Air trapping: when it is difficult to exhale completely

Allergic rhinitis: runny nose caused by allergies

Alpha-1 antitrypsin deficiency: a genetic disease that can cause COPD

Alveoli: air sacs

Arteries: blood vessels that carry oxygenated blood away from the heart to the body's cells, tissues and organs

Arterial blood gas (ABG): a blood test from an artery that measures how well your lungs are able to move oxygen into your blood and remove carbon dioxide from your blood

Asbestos: mineral that can be woven into fabrics and is used in fire-resistant and insulating materials such as brake linings

Bone density test: x-ray that measures bone loss

Bronchial tubes: air passages or airways

Bronchodilators: medicines that make you breathe better by relaxing the muscles in your air passages and keep them from squeezing

Carbon dioxide: waste air

Cardiopulmonary resuscitation: emergency lifesaving procedure that is done when someone's heart has stopped

Cataracts: clouding of the lens in your eye

Comorbidities: other chronic diseases a person has that make treating chronic disease more difficult

Continuous flow oxygen: oxygen that runs constantly through a tube into your nose and throat

Continuous positive airway pressure (CPAP): a device prescribed by a doctor or nurse to treat OSA

COPD Action Plan: a guide to help you recognize the early signs of a flare-up and what you should do when a flare-up occurs

Coronary arteries: blood vessels that supply oxygen-rich blood to your heart muscle

Coronary artery disease: a disease in which a waxy substance called plaque builds up inside your coronary arteries

Cor pulmonale: a condition that causes the right side of the heart to fail

CT scan: a picture of the inside of a part of your body

Diaphragm: a large muscle that sits below your lungs and does most of the work of breathing

Dose: amount of medicine

Echocardiogram: an ultrasound of the heart

Electrocardiogram: a test that checks for problems with the electrical activity of your heart

Energy conservation: saving energy

Esophagus: passage that connects the mouth and the stomach

Exacerbation: flare-up of your symptoms

Expectorant: medicine that loosens mucus so it's easier to cough up

Gastroesophageal reflux disease (GERD): acid reflux

Glaucoma: a condition of increased pressure within your eyeball, causing gradual loss of sight

Healthcare agent: the person you want to speak for you if you cannot speak for yourself

Heart failure: a condition in which your heart can't pump enough blood to meet your body's needs

Hospice: care for people closer to the end of life who want their treatment focused on comfort

Hypertension: high blood pressure

Inflammatory: swelling

Inhaler: device that contains medicine as a mist or powder
**Insulin:** hormone that carries sugar into your cells so that it can be used for energy

**Intravenous:** in a vein

**Long-acting (controller) medicines:** medicines taken once or twice a day that prevent shortness of breath

**Lung transplantation:** surgically replacing one or both of your lungs

**Lung volume reduction surgery:** surgically removing diseased parts of one or both of your lungs

**Mucolytics:** medicines that break up mucus

**Nebulizer:** device that turns liquid medicine into mist

**Nicotine replacement:** medicines that replace the nicotine you do not get when you quit smoking

**Obstructive sleep apnea (OSA):** a condition that causes you to have periods when you stop breathing during sleep

**Osteoarthritis:** mechanical wear and tear on joints

**Osteoporosis:** illness that makes your bones brittle and fragile

**Oxygenated:** combined or mixed with oxygen

**Palliative care:** care provided at any stage of an illness focused on preventing suffering, managing symptoms and coordinating communication between the many caregivers

**Peripheral vascular/arterial disease:** a condition of the blood vessels that supply the legs and feet. It leads to narrowing and hardening of the arteries. This causes decreased blood flow, which can injure nerves and other tissues.

**Pneumonia:** lung infection

**Pollutants:** waste materials that are harmful to air, soil or water

**Physician Orders for Life-Sustaining Treatment (POLST):** a medical order stating a patient’s wishes regarding treatments that are commonly used in a medical crisis

**Pulmonary hypertension:** high blood pressure in the arteries of the lungs

**Pulse dose oxygen:** oxygen that flows when you breathe in through your nose and stops when you breathe out

**Pulse oximeter:** a machine that measures the oxygen in your blood with a clip that goes on your finger, toe or earlobe

**Quick-relief (rescue) medicine:** medicine that starts to work in a few minutes and lasts a few hours

**Reflux:** when stomach acid backs up and irritates the esophagus

**Rheumatoid arthritis:** when your immune system mistakenly attacks the lining of your joints, causing a painful swelling that can eventually result in joint deformity

**Secondhand smoke:** smoke from a burning cigarette, cigar, pipe or hookah

**Silica:** a very common mineral found in many materials common on construction sites, including soil, sand, concrete, masonry, rock, granite and landscaping materials. The dust created by cutting, grinding or drilling can cause lung disease and cancer.

**Sinusitis:** swelling of the air cavities within the passages of the nose. Sinusitis can be caused by infection, but also can be caused by allergies and irritation of the sinuses.

**Spirometry:** a test to see how well your lungs are working

**Sputum:** mucus in your lungs

**Stroke:** when blood flow to an area of your brain is cut off

**Suppressant:** medicine to help you cough less

**Thirdhand smoke:** tobacco particles that stay on surfaces long after burning tobacco has been put out

**Thrush:** infection of the mouth and throat

**Trachea:** windpipe

**Ultrasound:** a test that uses sound waves to see inside your body

**Vaping devices:** electronic cigarettes, cigars and pipes that produce steam vapor when smoked