



## Oxygen Therapy for COPD or Heart Failure

### Introduction

Oxygen therapy is used when you do not have enough oxygen in your blood. When you have too little oxygen in your blood, your body does not get enough oxygen. When this happens, your heart and other parts of your body do not work very well. Oxygen therapy increases the amount of oxygen your body gets.

When you have heart failure or COPD, you may not have enough oxygen in your blood. It's hard to breathe, and you may not have much energy. You may need oxygen therapy to get more oxygen into your lungs and bloodstream. This can make it easier on your heart and help you breathe better.



### Types of oxygen therapy

Oxygen therapy may be given using:

- ◆ A concentrator, which takes oxygen from the air.
- ◆ An oxygen gas tank.
- ◆ A container of liquid oxygen.

### How does oxygen therapy work?

Oxygen therapy sends high levels of oxygen to your lungs. This increases the amount of oxygen that is sent to the rest of your body.

Oxygen therapy is usually small enough to take with you. You can use it while you move around and do daily tasks.

Which type of oxygen supply you use may be based on how active you are.

- ◆ Concentrators cost less than the other types. But they are electric-powered and are fairly heavy (about 30 lb). This makes them hard to carry. But if you do not leave your house often, concentrators may be your best choice since they cost less and are easy to use.
- ◆ Oxygen gas tanks come in several sizes. Small tanks can be carried and provide about 5 hours of oxygen. Larger ones are usually kept at home.
- ◆ Liquid oxygen costs more than oxygen gas. But the containers weigh less, hold more oxygen, and are more convenient to use. Liquid oxygen is more likely to catch fire than oxygen gas, so it may be more dangerous.

You can breathe the oxygen through a flexible plastic tube in your nostrils (nasal cannula), a face mask, or a tube put into your windpipe (transtracheal cannula).

- ◆ A nasal cannula gives you the most freedom to move around and talk. It may cost more because of oxygen lost to the air, and you may get less oxygen.
- ◆ A face mask makes it harder to talk and eat.
- ◆ A transtracheal cannula is placed in a small opening in your neck that leads to your windpipe. It is more hidden, it wastes less oxygen, and it does not dry out your nose. It does require more care, and there is a chance of infection.

## How does it help?

Your doctor may suggest oxygen therapy when you have low levels of oxygen in your blood. Oxygen therapy does not cure heart failure or COPD.

- ◆ In heart failure, you may have low levels of oxygen in your body because your heart is not pumping enough oxygen-rich blood to meet the body's demands. Blood carries oxygen. Oxygen therapy reduces how hard your heart works. It can make it easier for you to breathe and can give you more energy.
- ◆ In COPD, you have low levels of oxygen because not enough oxygen is going from your lungs into your blood. Oxygen therapy is only used if you have severe COPD and low oxygen levels. It is used most often to prevent or slow heart failure in people with COPD and to help them live longer. It may also make it easier for you to breathe. If your COPD is not severe, oxygen therapy will probably not help you. In this case, medicine and a program that includes exercise, breath training, and healthy eating may be used.

## Side effects

In most cases, there are no side effects from oxygen therapy.

Using a nasal cannula may dry out your nose.

If you use a nasal cannula, the tubing may rub under your nostrils and around your ears. To keep your skin from getting sore, tuck some gauze under the tubing. Use a water-based lotion on rubbed areas.

## What to think about

- ◆ There is a high risk of fire or explosion if you use oxygen around lit cigarettes or an open flame. Do not smoke while using oxygen therapy or while around someone using oxygen therapy. Put up “No smoking” signs in your home. Oxygen therapy may not be a good option if you or your caregivers smoke.
- ◆ Stay at least 5 feet away from gas stoves, candles, lighted fireplaces, or anything that produces sparks.
- ◆ Do not let oxygen containers get hot. Store them in a cool place. Do not leave them in a car trunk or in a hot vehicle.
- ◆ Keep oxygen containers upright. Make sure they are secured so they do not fall over or get damaged. If an oxygen container is damaged, do not use it.
- ◆ Your doctor will set the flow rate to give you the right amount of oxygen. Do not change the flow rate unless your doctor tells you to. A higher flow rate may not help, and it can increase the risk of a harmful buildup of carbon dioxide in your blood, especially if you also have lung disease.