

Oxygen Therapy: In the hospital, after surgery, and planning for home

Why do I need oxygen?

Oxygen is a gas found in the air around us. We take in oxygen every time we breathe. Our body needs oxygen to work properly.

Many people need extra oxygen during a hospital stay or after surgery to help with healing. Some patients need oxygen longer than others. How long you need it depends on your unique medical conditions. Some common reasons you may need oxygen include:

- A heart or lung condition that makes it hard to breathe
- Medications that can affect your breathing
- A condition called atelectasis [at-uh-LEK-tuh-sis] that makes your airways and the air sacs in your lungs collapse or not expand properly.
- Pain (may change how you breathe)
- Secretions (fluid) or mucus that blocks your airways.

How do I know if I'm getting enough oxygen?

There are 2 ways to check your oxygen levels:

- **Pulse oximeter.** This is a clip-on device that is placed on your finger or ear to measure the amount of oxygen in your blood. This measurement is called "saturation." (SpO₂). This can be done at home or in the hospital.
- **Arterial blood gas:** This is a way to measure saturation with a blood sample. The sample is generally drawn from an artery in your wrist.

What can I do to breathe better and stop using oxygen sooner?

There are several things you can do after surgery or an illness to help improve your breathing and decrease the likelihood you will need oxygen when you go home:

- **Practice taking deep breaths and coughing several times a day with an incentive spirometer** [spuh-ROM-uh-tur]. This device helps you see how deeply you are breathing. Your nurse or respiratory therapist will show you how to use it.



A patient using an incentive spirometer to practice deep breathing

If you had surgery in your abdomen (belly) and it hurts to breathe deeply, try holding a pillow tightly against your abdomen while you take deep breaths. This may help decrease the pain.

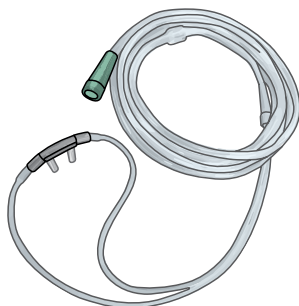
- **Walk as soon as possible after surgery.** To stay safe, make sure your doctor or nurse says it is okay and allow staff to help. This is especially important at first because you will be weak from surgery and your medications may make you dizzy. Having help will help you prevent a fall or injury.

- **Sit upright as much as possible and spend time out of bed.** For example, move from the bed to a chair or wheelchair when you can.

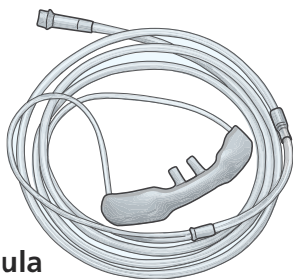
How is extra oxygen delivered?

Oxygen can be delivered to your lungs through a number of different devices that fit on your nose and mouth.

- A **cannula** is a narrow tube made from soft plastic. It has two small openings (prongs) that are put into your nostrils.



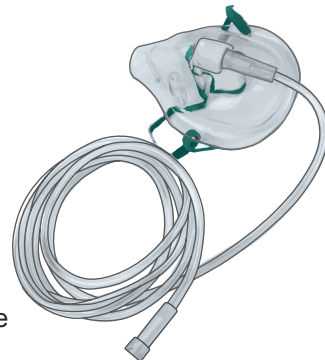
- A **reservoir cannula** can deliver higher concentrations of oxygen. It is only for people who cannot use a regular cannula or mask and are going home with oxygen.



- A **high-flow nasal cannula** delivers oxygen at a higher flow rate at any oxygen concentration. It is generally used for people who are struggling to get enough oxygen and breathing support with a regular cannula.



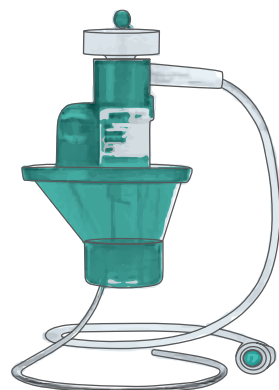
- A **simple face mask** is a small plastic shield that fits over your nose and mouth. An elastic band around the back of your head holds it in place. The mask has holes on the side to let out air when you exhale (breathe out) and let room air in.



- A **non-rebreather mask** also fits over your nose and mouth. A small bag, called an oxygen reservoir, is attached to the mask. This allows very high concentrations of oxygen to be delivered.



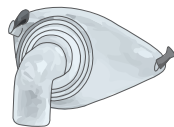
- A **high-flow nebulizer** is a device used when you need a lot of oxygen. It adds moisture to the oxygen, and also allows your healthcare team to see how much oxygen you use.



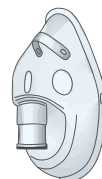
Blood oxygen target levels are:

- Adults: 90 to 94%
- Adults with lung disease: 88 to 92%
- Children: 90 to 95%

Trach mask



Aerosol mask



Never take off your oxygen or someone else's oxygen without the help of a nurse or respiratory therapist.

What if I need oxygen at home?

Some patients need oxygen at home after surgery or a stay in the hospital. Your doctor will prescribe it and your healthcare team will work with you and your insurance provider to get the oxygen equipment you need. This may include an oxygen concentrator, with or without a portable oxygen tank.

Unfortunately, some insurance plans do not pay for home oxygen after surgery. If your medical condition does not qualify you for insurance coverage, there are self-pay options available for home oxygen. Your respiratory therapist or case manager will answer your questions about home oxygen and may be able to provide a cost estimate based on your oxygen needs.

What safety steps should I take while I am using oxygen?

Oxygen can explode and start fires. Do not smoke while you are on supplemental oxygen or let anyone around you smoke. Do not use oxygen near flames or anything that could cause a spark, including candles, heaters or fireplaces. Keep oxygen equipment away from oil, grease, and petroleum-based products such as Vaseline. These can cause a fire.

Always store your oxygen tank in an upright and secure position. It should be kept in a place where it won't be knocked over. If it does fall over and the valve breaks off, the tank could shoot across the room and hurt someone.

When should I call my doctor?

If you think that you need more oxygen or no longer need oxygen, call your doctor's office. Do not stop using oxygen or adjust your oxygen equipment without talking to your healthcare team first.

What other supplies should I consider for home oxygen use?

Ask your pharmacist or medical supply company about making your oxygen use more comfortable:

- **Dry nose:** A water-based nasal gel can help keep the tissues in your nose from drying out.
- **Sore ears:** Ear pads can be placed on the tubing or strap and the tops of your ears to help prevent sore spots.

Notes
