Oxygen Use at Home

Some children with heart or respiratory problems may need oxygen therapy to help them breathe. A healthcare provider may measure your child’s blood oxygen level (saturation) to determine how much oxygen they need during sleep, rest, and exercise. This is called pulse oximetry [ox-IM-it-tree]. Once the doctor knows how much oxygen your child needs, they will write an oxygen prescription.

What does an oxygen prescription include?
An oxygen prescription may include:

• Oxygen doses (in liters per minute) during exercise, rest, and sleep
• The number of hours your child will need to use oxygen each day
• The way your child will receive the oxygen
• The type of oxygen supply system they will use (usually compressed gas, described below)

How does my child receive oxygen?
Your child can receive oxygen in several different ways:

• **Nasal cannula:** Insert this small tube with soft prongs in the nostrils with the curve facing down. Your child may need adhesive to help the cannula stay in place, like small stickers or medical tape. If these cause skin irritation, try silicone tape. It is gentler on skin and available at drugstores.

• **Simple face mask:** An elastic band holds a plastic face mask, worn over the nose and mouth, around your child’s head. Holes on the mask’s sides allow exhaled air (air breathed out) to escape and room air to enter. Some children take a while to adjust to wearing this device. Oxygen flow must be more than 5 liters per minute.

• **Non-rebreather mask:** This mask fits over the nose and mouth and has an attached oxygen reservoir oxygen bag. The bag prevents your child from breathing back exhaled air, which contains a lot of carbon dioxide. This device is usually for children who need 12 to 15 liters of oxygen per minute.

• **Bag-valve mask with oxygen reservoir:** The bag-valve mask fits more snugly over the nose and mouth and has an attached oxygen reservoir bag. This helps keep a high oxygen level in the mask. The bag-valve mask delivers the highest amount of oxygen.

How do I help my child get used to the oxygen cannula or mask?
Some children need help adjusting to an oxygen delivery device. Here are some tips to help them:

• Invite your child to play with the cannula or mask. Practice putting it over your child’s face or have them pretend to give it to a doll or parent.

• Encourage your child to help put the device on when they can.

• Provide a small incentive or distraction when they use the device.
How do I safely use a compressed oxygen tank?

To use a compressed oxygen tank safely:

- Keep the tank away from all heat sources, including radiators, heat ducts, stoves, fireplaces, matches, and lighters.
- Don’t let anyone smoke or have a fire in the room if your child is using oxygen.
- Keep the tank your child is using in the stand. Lay any other tanks on their sides and secure them so they don’t roll around. If the valve post breaks off a tank, the pressure can release and propel the oxygen tank forward quickly.

**Oxygen is flammable, which means it can make things burn easily or even explode.** It can be dangerous if not used correctly. Follow all safety rules and instructions carefully to use compressed gas.

How do I attach the regulator to the tank?

To attach the regulator to the tank:

1. Remove the plastic wrap from the valve post on the tank (see Illustration 1). It may contain a washer.

2. Attach the regulator to the tank by slipping the regulator over the tank’s valve post. Align the pegs on the inside of the regulator yoke with the holes in the valve post. Slide the regulator forward so the pegs go into the holes.

3. Fasten the regulator to the tank by turning the T-handle on the regulator until it’s tight. If the handle is not tight enough or the washer is not in place, the tank will leak when the valve opens. This means you’ll lose oxygen from the tank faster than normal. See Illustration 2 on the next page for proper placement.
What do I do if oxygen is leaking?

If you hear a whistling sound or air escaping where the regulator meets the valve post, you’ll know you have an oxygen leak.

To fix it:

1. Make sure the T-handle is tight and secure.
2. Change the washer on the regulator if you still hear a leak:
   - Remove the old black-and-gold washer inside the regulator and replace it with a new washer. A healthcare provider should have given you a spare washer. It may also be attached to the regulator on a small ring.
   - Replace the regulator, turn on the oxygen, and see if the leak is fixed.

If these steps do not fix your leak, contact your oxygen supplier for a new regulator.

How do I turn on the oxygen?

To turn on your child’s oxygen:

1. Make sure the flow regulator knob (see Illustration 2) is set at 0. This knob is different for each regulator but usually marked with numbers. Ask your oxygen supplier how to use it.
2. Tighten the T-handle to prevent leaks.
3. Put the cylinder wrench (see Illustration 1) on the tank’s on/off valve at the top of the tank.
4. Turn the valve one full counterclockwise turn to open it. As the valve opens, the regulator’s pressure gauge shows the amount of pressure in the tank. A full tank reads about 2,000 psi (pounds per square inch).
5. Adjust the flow knob on the regulator until the gauge reaches the flow rate the doctor prescribed.
6. Attach the tubing to the nipple adaptor on the regulator.
How do I turn off the oxygen?
You should turn off the oxygen tank whenever your child is not using it. To do this:

1. Use the small cylinder wrench to turn the tank on/off valve clockwise until it’s fully closed (unable to turn). To get rid of the pressure in the regulator, turn the flow regulator knob to its highest setting (often 8 liters) until you no longer hear any oxygen coming out of the regulator.

2. Turn the flow regulator knob to 0 when the pressure gauge reads 0.

3. Remove the regulator by loosening the T-handle if you are changing the cylinder. Slide the pegs out of the holes on the valve post and lift the regulator off the valve post.

When should I change the oxygen tank?
It is important to change oxygen tanks before the pressure drops below 500 psi. Below this level, the gauge’s accuracy is not as reliable. Your oxygen supplier will tell you about how long the tank should last. Ask the supplier for a new tank early so your child doesn’t run out of oxygen. Remember: The cylinder valve must be open in order to read cylinder pressure.

How does my child travel with the oxygen tank?
When traveling with your child’s oxygen tank:

- Lay it flat and secure it in the vehicle so it doesn’t roll or bump against other tanks or objects.
- Open a car window slightly when driving with an oxygen cylinder.
- Don’t let others smoke around the oxygen cylinder.
- Keep cylinders out of direct sunlight.
- Don’t store cylinders in the trunk.
- Ensure there is plenty of oxygen in the tank for your travel time.

When should I call my child’s doctor?
Call your child’s doctor if your child:

- Has trouble breathing, especially during exercise
- Can’t sleep
- Has unexplained anxiety, is very upset, or is crying a lot

If your child has a bluish tongue or lips, is unusually sleepy, or can’t breathe, call 911.

Questions for my child’s doctor

Questions: