



**NATIONWIDE CHILDREN'S**  
*When your child needs a hospital, everything matters.*

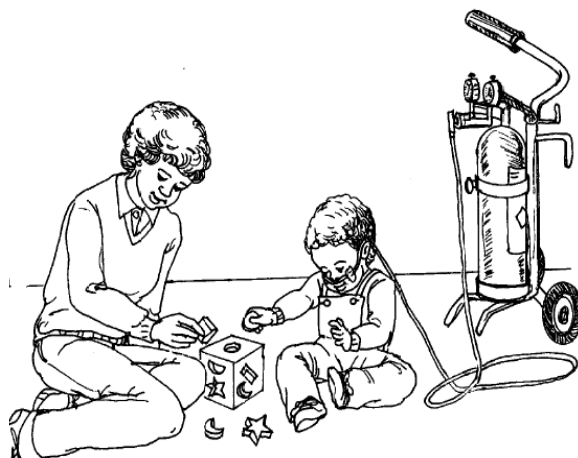
**Helping Hand™**

*Health Education for Patients and Families*

## Oxygen Therapy at Home

The cells in our bodies need oxygen to live. When we breathe in (inhale), oxygen goes into the lungs. Oxygen is carried by our blood to all parts of our body where it is used by the cells. When the oxygen is used, carbon dioxide is left over. This carbon dioxide is carried by the blood back to the lungs and is breathed out (exhaled). When your child has lung or heart problems, not enough oxygen may be reaching the cells. Without enough oxygen, growth and development can slow down. Increasing the oxygen level in the air your child breathes makes it easier to get enough oxygen to all parts of the body.

Your child has had blood tests to see how much oxygen they need. Based on these tests, your child has been prescribed the amount of oxygen they should have at home. **This amount of oxygen is a prescription. Decreasing the amount of oxygen can be harmful. It should not be decreased without an order from your health care provider.**



**Picture 1** Receiving oxygen therapy at home.

### Equipment

**Oxygen equipment and supplies** will be provided by a home health company. You will meet with the company representative before your child goes home. They will bring the equipment to your home, set it up, tell you how it works, and how to take care of it.

Oxygen for home use is provided in tanks or by a concentrator (Picture 1). Small tanks are also available for use when your child travels away from home. The homecare company will tell you how to check the amount of oxygen you have in the tank so you can call the company when you need more. Check the oxygen supply **every morning**. Always call at least 24 hours before you expect to run out of oxygen. Most companies have 24-hour delivery, but it may cost you more after normal business hours to have it delivered.

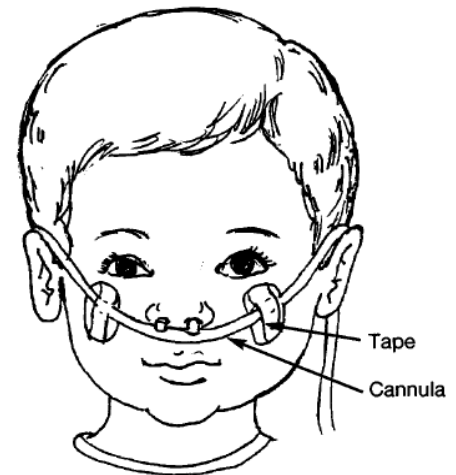
Some newborn infants may also go home with an **apnea monitor**. The apnea monitor is made to sound an alarm if your infant has either a pause in breathing (apnea) or slow heart rate (bradycardia). You will be taught how to use the monitor before you go home.

Some children may go home with a **pulse-oximeter**. The pulse-oximeter sounds an alarm if your child's oxygen level or pulse rate falls. The rate is determined by the health care provider and preset by the homecare company. You will be taught how to use the monitor before your child goes home or by the homecare staff when the equipment is brought to your home.

## Nasal cannula

Follow the company's instructions for soaking the tubing in the solution they provide. They will tell you how often to change and clean the nasal cannula.

- A nasal cannula is used to give your child oxygen at home. It is a small tube with prongs that goes under the nose and around the head (Picture 2). The two prongs on the tubing go into the nostrils.
- Tape the tubing securely to your child's face. The tubing can be placed so it goes under or over the ears. You may use the tape or other product that is supplied by your homecare company. Use what works best for your child and does not bother their skin.
- Make sure the cannula is not too tight. It must not pinch at the hairline or leave marks on your child's face.
- If the cannula is dirty with mucus, it will need to be changed or cleaned. Otherwise, tubing should be changed or cleaned as taught by your equipment company.
- Do not change or adjust the nasal prongs in any way. Nasal cannulas come from the factory with the ends smooth and rounded off. Cutting the prongs on cannulas can sharpen the ends and this may hurt your child.
- The nasal cannula prongs are slightly curved. Make sure the prong tips curve **DOWN** into the nose following the natural curve of the nasal passage. Prongs that are placed wrong can bother and damage the nasal tissue.
- Oxygen should have moisture added (humidified). This keeps the lining of your child's nose moist, so it does not crack and become sore.
- You will be shown how to add water to the humidifier bottle. Short periods of time without humidity will not harm your child. You do not need to use it when you go away from home for brief periods of time. Your provider can tell you how long your child can be without humidity. If you use humidity with a portable tank, **it must be secured in an upright position** to prevent spilling the water into your child's nasal cannula.



**Picture 2** The nasal cannula taped in place. Change the location of the tape a little each day.

## Warning

- The medical device tubing can get wrapped around a child's neck. This can lead to choking (strangulation) or death.
- DO NOT leave the medical device tubing where infants or children can get tangled up in it.
- Talk to your child's health care provider:
  - If your child has been tangled in their tubing before.
  - To learn steps you can take to help make sure the tubing does not get wrapped around your child's neck, such as keeping the tubing away from the child as much as possible.
  - Any other concerns you may have about the risk of strangulation from medical device tubing.
- If your child is injured by the medical device tubing, please report the event to the FDA. Your report can provide information that helps improve patient safety. The website to make a report is:  
<https://www.accessdata.fda.gov/scripts/medwatch/index.cfm?action=reporting.home>

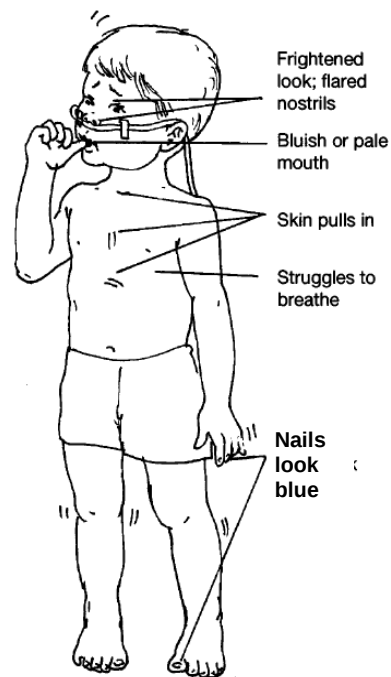
## Skin care

- Take the cannula off during your child's bath time long enough to wash their face. Then re-tape it in place for the rest of bath time. If your child does not breathe for brief periods without oxygen, leave the oxygen in place.
- Change the tape and location of the tape every day. If your child's skin is red, you may need to use a different type of tape or ask your homecare company about other products that may be available.
- The nasal cannula can irritate your child's nose. Watch for redness where the prongs might rub the skin. Wash the skin with water, but do not use soap. Soap can make the skin dry.
- Oil-based lotions are possible fire hazards. They should not be used on your child's face. A water-based lotion such as Lubriderm® or Lotrimin® lotion should be used. Read labels carefully because most lotions (including lip balms like Vaseline® and Chapstick®) are oil or petroleum-based.

## Preventing infections

- Hand-washing is the single best way to prevent infections. Wash your hands before handling or feeding your baby and after diapering. Be sure others wash their hands too.

- Avoid places with large crowds like church, the grocery store, or shopping malls. Protect your child from exposure to infections as much as possible.
- Do not let your child be held by many people. Lots of handling can affect the way your child eats and sleeps.
- Ask visitors not to touch or wake up your child if sleeping.
- Ask people not to visit when they or members of their family are sick.
- No one should smoke in the same house or car with your child. Breathing in smoke can cause congestion, respiratory distress, ear infections, and possibly pneumonia.
- Regular well child checkups with your health care provider and keeping up to date on shots will help protect your child.
- It is important for your child to receive a yearly flu shot if they are at least 6 months old. Family members and caregivers should receive a flu shot as well.



**Picture 3** Signs of breathing trouble.

## When to call the health care provider

Children with lung problems can get sick faster than healthy children. Check your child for the signs of breathing trouble (Picture 3). These changes can mean that they have an infection or are not getting enough oxygen. If you notice any of these signs (listed on the next page) do the following:

- **Quickly check to make sure your child's equipment is working properly** and they are getting the right amount of oxygen.
- **Then increase the oxygen by \_\_\_\_ to \_\_\_\_ liter(s)** and call your child's provider right away. You will not harm your child by increasing the oxygen this much before calling them.

## Signs of breathing trouble

- pale or blue color around lips, around the nails, eyes, or soles of the feet
- temperature of 100.4° Fahrenheit (F) or 38° Celsius (C) degrees or higher
- changes in breathing
- faster than \_\_\_\_ breaths per minute when your child is sleeping or resting quietly

- **labored breathing** - check to see if the skin pulls in above the collar bone, between the ribs or under the ribs
- **nasal flaring** - check to see if the nostrils get wider when your child breathes in
- **noisy breathing** - grunting, wheezing (high-pitched whistling), or congestion
- **very shallow or deep breathing** - check to see if the left and right sides of the chest move in and out the same
- changes in your child's behavior - too fussy or too quiet

## **Parking Sticker**

If your child will be on oxygen all the time for many weeks or months, you may be eligible to apply for a handicapped parking sticker. Please ask your child's health care provider about this.

## **Activity**

- A child's activity is limited only by what makes them tired or causes trouble breathing. Usually, it is an activity that uses a lot of energy and may increase the need for oxygen.
- Your provider may give you more information about the limits of your child's activity and may give you a range of oxygen levels to use with your child during activity. By keeping a close watch on how your child looks and acts, you will soon feel relaxed adjusting the oxygen.
- School attendance should be discussed with your child's provider.

## **Keeping a record**

Keep a daily record of:

- when you soak the tubing
- when you change the cannula
- how much oxygen is left in the tank
- when you have an appointment with the health care provider

You may use a calendar or the record on pages 7 and 8.

## **Weaning your child from oxygen**

- As your child improves, the provider may decrease the amount of oxygen.
- Your provider will tell you when you can wean your child from the oxygen. Do not take your child completely off oxygen until you are told to do so.

- Your child may become grouchy, less active, tired, and have a poor appetite until their body gets used to the lower level of oxygen. If your child has trouble breathing during this time (labored, nasal flaring, color changes, etc.), put the cannula back under the nose or increase the oxygen to where it was before and call your health care provider.

## Safety

- No smoking is allowed in the house or car with a child on oxygen. Smoke can cause the child to have more trouble breathing.
- No open flames are allowed within 10 feet of a child on oxygen. This includes matches, cigarette lighters, space heaters, pilot lights, fireplaces, or candles. Oxygen makes fire burn hotter and faster. A small hot ash or spark can quickly become a blazing fire.
- Keep oxygen tanks at least 10 feet away from heaters and radiators. The tank can explode if it gets too hot.
- Do not leave oxygen tanks in a hot car.
- Keep a fire extinguisher available. Make sure everyone knows how to use it properly.
- Put smoke alarms on every floor of your home and check the batteries often.
- If using humidity with portable oxygen, the bottle must be secured in an upright position to prevent spilling into your child's nasal cannula. To prevent accidents, take the humidity bottle off while traveling in the car and put it back on when you have reached where you are going.
- Do not bump or knock the valve on the oxygen tank. Be careful to secure the tank in the car so this does not happen. If the valve is knocked off, the pressure in the tank will propel it like a torpedo, hurting anything in its way.
- Be sure the tubing does not get pinched in the side rails of the bed. See the **warning** on Page 3.
- Tubing from the tank may be long. Place it away from where people walk, from beneath rocking chairs, crib side rails, and away from areas used by strollers or riding toys.

If you have any questions, be sure to ask your health care provider.

## DAILY RECORD

Child's Name: \_\_\_\_\_ Age: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_

7

## DAILY RECORD

Child's Name: \_\_\_\_\_ Age: \_\_\_\_\_ Month: \_\_\_\_\_ Year: \_\_\_\_\_

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