

DME 101:

A guide to medical equipment commonly used for children with lung diseases



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WHAT IS DURABLE MEDICAL EQUIPMENT?

According to Medicaid, Durable Medical Equipment (DME) is any equipment that provides benefits to a patient who has certain medical conditions and/or illnesses. DME serves a medical purpose and is not useful to a person without an illness or injury. It is usually ordered or prescribed by a physician. Some examples of DME are:

- Oxygen
- Ventilators
- Apnea monitors
- Nebulizers (Compressors)
- G-Tube Supplies

HOW TO GET DME

Families of children who have an ongoing medical condition may need to get DME through their insurance carrier or Medicaid. Each insurance carrier has its own definition of DME, so learning about what is covered under your provider is important.

DME is provided by businesses that specialize in medically-related equipment. In large cities, there are often companies specializing in DME for children.

If you are leaving the hospital, a case manager or social worker will work with you to get the DME your child needs as part of the discharge planning. The case manager may have a list and select a DME provider “by rotation.” However, you do not have to use this provider if you don’t want to. You can work with the case manager or social worker to choose a provider. Just keep in mind that this may be overwhelming, due to the large number of providers in big cities.

Later on, you will probably need to get your primary care physician/specialist to authorize your child’s ongoing need so your child will continue to receive the needed

equipment. Ask your insurance company to assign you an out-patient case manager to make continued authorizations easier for you.

If you have problems with the company providing the DME, contact the case manager that set up the order and ask for help.

IMPORTANT QUESTIONS TO ASK THE DME COMPANY

Before agreeing to work with a DME company, find out the answers to these questions:

- Is the DME company “in-network” for your insurance carrier?
- What are your “out-of-pocket expenses”? (This will vary depending on your insurance.) Be sure to understand the details of what you will be expected to pay.
- How long will it take to deliver the equipment?
- Will someone teach you how to operate the equipment before your child is discharged from the hospital?
- Does the equipment company have pediatric staff experienced in working with both newborn infants and young children?
- What happens if there are equipment problems after regular office hours or on weekends? What is their response time? Will they supply back-up equipment?

It is always helpful to have on hand the DME phone number and fax number with you. I always recommend to parents to write it down and laminate to a small credit card size and place in your wallet or diaper bag.

What is oxygen?

Oxygen (often called O₂) is a colorless, odorless gas that is part of the air we breathe. It is essential for all cells in our body and helps healing.

Sometimes, children who have breathing problems need extra oxygen. This makes them feel better because they don't have to breathe harder or faster to get enough oxygen.

TYPES OF OXYGEN

Your child may have two types of oxygen systems:

- oxygen concentrator, for home use only
- portable oxygen: either an oxygen tank or liquid oxygen (not highly recommended and not many DME's carry this)

The type of oxygen system is prescribed to meet your child's needs.

What are the risks of oxygen?

When oxygen is in use, there is an increased risk of fire. Each type of oxygen system has other safety issues as well as the danger of fire. For example, oxygen tanks and liquid oxygen vessels contain oxygen under pressure, which can cause injury if not used correctly.

Make sure you understand completely how to use the oxygen equipment. Ask your nurse, doctor, or medical equipment company as many questions as needed.

What should I do?

A doctor's prescription is required. Think of oxygen as a medicine. Do not change the liter flow (amount of oxygen flowing through the tubing) without talking with your home care nurse, doctor, or respiratory care practitioner.

Be sure to have at least a three-day supply of portable oxygen on hand, so that it does not run out. Your respiratory care practitioner or oxygen supplier can help you determine what a three-day supply is for your child, and will help you arrange a routine delivery schedule.

Keep the oxygen tubing in sight. Do not put the tubing under furniture, bed covers, carpets, clothing, or other items. This could kink the tube and prevent the flow of oxygen through the tubing.

Prevent fires

Do not allow smoking in your home, car, or other places where your child is receiving oxygen. Post "No Smoking" and "Oxygen in Use" signs on the entrances to your home.

Do not leave oxygen on when not in use.

When the oxygen is on, keep it and your child at least 10 feet away from fireplaces, stoves, or gas appliances (dryer, hot water heater).

Do not let your child play with toys that have friction motors or that give off sparks.

Do not use electrical equipment in an oxygen-enriched environment. Examples include electric razors, hairdryers, electric blankets, or electric heaters. Electrical equipment may spark and cause a fire. Cell phones are okay.

Do not use flammable products such as paint thinner, rubbing alcohol, or oil-based products such as Vaseline® near the oxygen. Use a water-based lubricant such as K-Y® jelly to moisten your child's lips or nose.

Prevent injury

Prevent oxygen tanks or liquid oxygen vessels from falling. A falling tank or vessel is very dangerous. If it falls over or is dropped, it might break, causing the pressurized oxygen to escape rapidly. This pressure can cause the tank or vessel to fly through the air.

Always keep oxygen tanks or liquid oxygen vessels upright in a cart, rack, or stable base. Never tip them on their side. Do not use tanks or vessels that have fallen or are damaged.

Store out of direct sunlight and in a well aired space.

When moving an oxygen tank or vessel, always use a shoulder bag or wheeled cart.

Traveling with oxygen

Be very careful when traveling with oxygen.

- No smoking in the car.
- Never put the oxygen into a hot vehicle.
- Never put the oxygen in the trunk.
- Secure the oxygen to avoid rolling or banging. For example, you could secure it with the seatbelt in the seat that is next to your child.
- Make sure there is air movement in the vehicle.
- Always take the most direct route.
- Try to avoid heavy traffic.
- When you arrive, remove the oxygen from your vehicle right away. Never leave it in a vehicle - it could get hot from the sun.

USING AN OXYGEN CONCENTRATOR

An oxygen concentrator is a device that separates the oxygen out of the air, concentrates it, and stores it in the machine. A nasal cannula (plastic tube) brings the oxygen to your child's nose.

Store and use the oxygen concentrator correctly

The oxygen concentrator needs electricity to work. Always plug it into a grounded outlet.

Do not use an extension cord or power strip.

The concentrator produces heat. Keep it in an open area. Never put it in a closet or small, closed-in space.

The concentrator is not portable. Long lengths of oxygen tubing are used so your child can move around. Another type of oxygen system must be used for travel outside your home, or if the power goes out.

Taking care of the equipment

An oxygen concentrator is easy to maintain. Your medical equipment company will give you instructions on care and cleaning.

Please check with your medical equipment company to see how often your concentrator needs to be serviced.

USING AN OXYGEN TANK

An oxygen tank is a metal container filled with oxygen under high pressure. Oxygen tanks come in different sizes. The size used is based on your child's needs.

Terms:

Cracking the tank: opening the valve just enough to let a small amount of oxygen out, which will clear dirt out of the valve.

Crush gasket: a nylon washer that comes with each new tank of oxygen. When you set up an oxygen tank, take this off and throw it away.

Flow meter: measures the flow of oxygen coming out of the tank in liters per minute (LPM).

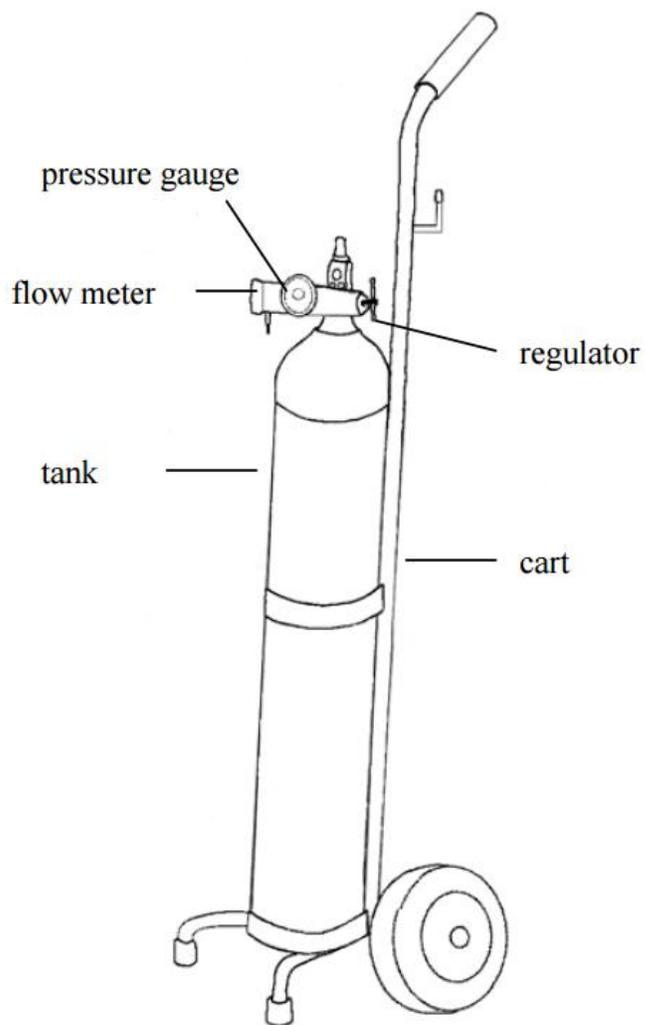
Nasal cannula: tubing that is connected to the oxygen tank and brings the flow of oxygen into your child's nose.

Pressure gauge: measures how much oxygen is in the tank. A full tank has between 1800 and 2200 pounds per square inch (PSI).

Regulator: a device that contains both the flow meter and the pressure gauge. It is attached to the tank, and lets the oxygen out at a safe pressure. Never carry a tank by the regulator. Never use any type of lubricant (oil or grease) on the regulator. This could cause a fire.

Sealing washer: a metal or metal-and-rubber washer that is used to provide a tight seal between the oxygen tank and the regulator. The sealing washer helps to prevent oxygen from leaking.

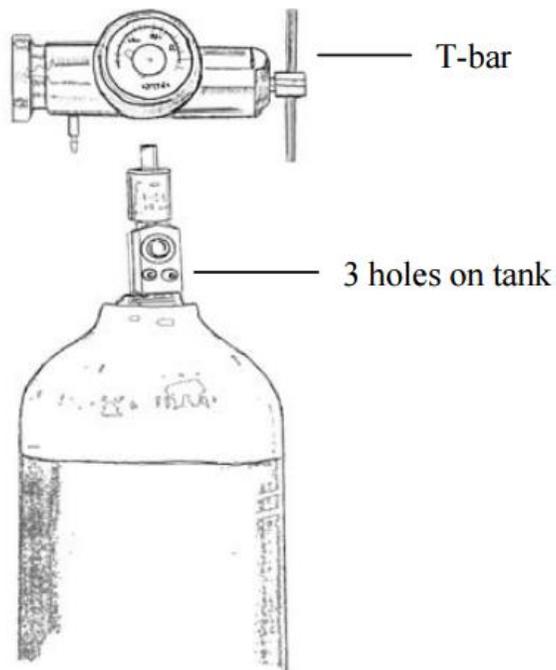
Parts of an oxygen tank set-up



Setting up the oxygen tank

1. Wash your hands.
2. Remove the white or blue plastic tape from the top of the tank. Remove and discard the disposable crush gasket.
3. • Caution: never use the crush gasket for setting up the tank.
4. Crack the tank:
5. • Point the oxygen outlet away from yourself and others.

6. • Place the wrench (included with the oxygen tank) on the valve on top of the tank.
7. • Turn the valve to the left (counterclockwise). A hissing sound means gas is coming out.
8. • Stop once you hear the hissing sound, and turn the valve off by turning it to the right (clockwise). Don't over tighten.
9. Always be sure the valve, regulator, and sealing washer are free of oil or grease. Oil or grease can cause a fire.
10. Put the sealing washer on the tank.
11. Put the regulator on the tank:
12. • Make sure the regulator's three pins are lined up to the three holes on the tank.



- 13.
14. • Tighten the regulator onto the tank with the regulator's T-bar handle.
15. • Open the tank by turning the valve with the wrench one complete turn counterclockwise. Turn the wrench slowly.

16. • If you hear a loud hissing sound, this means there is a leak. Close the tank right away by turning the wrench clockwise. Call your oxygen supply company right away.
17. Check the pressure gauge.
18. Place the oxygen tubing on the regulator's outlet.
19. Turn the flow meter knob to the LPM setting prescribed by your child's doctor.

Note: When turning on the oxygen tank, wait until the valve is fully open, to get an accurate reading of how much oxygen is in the tank.

NEBULIZERS (COMPRESSORS)

Hand-Held Nebulizer Treatments

A nebulizer is a type of inhaler that sprays a fine, liquid mist of medication. Nebulizers are commonly used in younger children who cannot use a metered dose inhaler. The device consists of an air compressor, a cup for medication, and tubing connected to a mouthpiece or mask through which the medication is inhaled.

The medications used in nebulizers help your child by loosening the mucus in the lungs so that it can be coughed out more easily. They also help relax the airway muscles so that more air can move in and out of the lungs. Breathing the medication straight into the lungs can work better and faster than taking the medication by mouth, particularly in younger children who have a hard time using a metered dose inhaler correctly. Nebulizer treatments take about 15 to 20 minutes to give the medication.

Giving a treatment

The following steps are recommended when giving a treatment to your child. However, always consult your child's doctor for specific instructions.

1. Gather supplies needed, including:
 - Medication to be nebulized

- Nebulizer set (nebulizer cup, mouthpiece or mask, tubing to connect to nebulizer machine)
2. Find a quiet activity to do while your child sits up for the treatment (for example, reading a book, drawing, or playing a quiet game).
 3. Place the nebulizer on a flat surface (for example, table or the floor).
 4. Plug the unit into a wall outlet.
 5. Connect the air tubing to the nebulizer machine.
 6. Put the medication into the nebulizer cup and screw the cap on securely.
 7. Connect the other end of the air tubing to the nebulizer cup.
 8. Connect the mouthpiece or face mask to the nebulizer cup.
 9. Turn the machine on.
 10. Check to make sure a fine mist of medication is coming through the face mask or mouthpiece.
 11. Mouthpiece:
 - Place the mouthpiece in the child's mouth with the lips sealed around the mouthpiece.
 - Encourage your child to take slow deep breaths in and out of his or her mouth. The mist should "disappear" with each breath.
 12. Face mask:
 - Place the mask over your child's mouth and nose. The adjustable elastic band may be used to hold the mask in place.
 - Encourage your child to take deep breaths in and out for the duration of the treatment.
 13. Encourage your child to continue slow, deep breaths until all the medication in the nebulizer cup is gone. You may need to tap the sides of the nebulizer cup to ensure all medication is given.
 14. Turn the nebulizer off.
 15. If the child's treatment plan orders peak flow measurements, get these before the treatment starts and after the treatment is completed.

After each treatment

1. Disconnect the nebulizer cup from the tubing.
2. Open the cup and wash all pieces in a mild dish soap and water. (Do not wash or rinse the tubing.)
3. Rinse all pieces.
4. Air dry on a clean towel.

5. Store the dried nebulizer cup and tubing in a plastic bag.
6. Once a week, rinse the nebulizer cup in a vinegar/water solution, as directed by your doctor, after washing.

Notes for parents

- Stay with your child throughout the nebulizer treatment.
- If your child vomits or has a severe coughing spell during the treatment, stop the treatment, let the child rest for a few minutes, then resume the treatment.
- Check the filter on the nebulizer machine once a week. When it becomes discolored, replace with a new filter.
- Always keep a spare nebulizer kit at home. When you are down to your last two kits, contact your medical equipment company to deliver more.
- Nebulizer cups should be replaced every 6 months

Insurance

Based on patient's insurance they are entitled to a new compressor every 3-5 years. For Example, Masshealth patients are entitled to a new compressor every 5 years where BCBS, Tufts is 3 years.

These can be ordered thru the contracted DME company that is affiliated with your insurance.

If a second compressor is needed and must be paid out of pocket DO NOT ORDER thru DME Company (because they are affiliated with Insurance companies the charge is likely much more higher if you were to buy online or at a pharmacy.

---we suggest going to Pari.com or if you would like to use a local pharmacy. Walgreens carries them and run around 70.00 dollars (a prescription will be needed for a nebulizer compressor). Flex spending has paid for second compressors in the past.

Traveling (Airlines) with Oxygen

Unfortunately, Insurance will not pay for oxygen during a flight or for traveling unless it is deemed medically related (hospital visit, work up). When traveling it is important to call your doctor's office a couple of weeks ahead and start the process.

The first step is to discuss with your Pulmonary Specialist if an Altitude Challenge Test is needed to determine the amount of oxygen that is needed during the flight.

Once this has been determined it is recommended that prior to booking for your flight that the family looks into what airline will let you travel with oxygen on the flight. Certain Airlines require specific concentrators. Parents can go online to the airline website and look under medical needs (there is a section for oxygen requirements and guidelines).

Please call your specialist a few weeks ahead with the following:

Flight Number and Airline

Layovers (how long)

Oxygen requirement

Guardian that will be responsible for the oxygen during the flight

Forms from the airline website that need to be signed from the doctor

If an oximeter is to present on the flight

Once this information is obtained a Letter of Medical Necessity and Prescriptions will be generated to the airline and will need to be sent to an outside vendor to supply the oxygen and battery packs for the flight (Oxygen Express in NH is highly recommended).

Prior Authorization

The majority of the prescriptions presented to a pharmacy are simply filled with no questions asked. However, there are a limited number of medications that require review and approval prior to being allowed coverage by the Plan. This process is commonly referred to as “Prior Authorization”. Obtaining this authorization is necessary before the prescription can be processed.

How does Prior Authorization work?

Prior Authorization is another utilization management tool that Plans use to control medication expenditures. Prior Authorization (or PA) criteria are developed for medications that may have:

- High potential for serious side effects or interactions with other medications
- More cost-effective alternatives
- Use in a very limited spectrum of medical conditions or special patient

How does this impact the patient?

When a patient presents a prescription for a medication that requires a Prior Authorization review/approval, the dispensing pharmacy receives an electronic reject message informing the pharmacist that the medication is under a PA program. The pharmacy is instructed to contact the Prior Authorization Approval Center to initiate the review process. If the pharmacy processing the prescription, they will initiate contacting the physician to make them aware of the Prior Authorization process. Patients may need to consult with their physician to submit the necessary Prior Authorization information.

Occasionally, the patient may not meet certain medical exemption criteria for the Prior Authorization medication and the claim may be rejected. If these criteria for a PA approval are not met, the patient and prescribing physician will receive notification that the prescription claim has been denied and outline the steps to submit an appeal.

Typically Prior Authorizations require detailed notes and letters medical necessity from the physician's office in order to get approved and the turn around from insurance is around 48-72 hours. It is always helpful to keep a log of PA status (some insurance companies will approve for 6 to 12 months). In clinic we find it extremely helpful if parents notify the office a couple of weeks before the PA is to expire. When doing so please let the office know if insurance has changed or if there are 2 insurances (since both may need to have paperwork submitted).

