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NHOPA NEWS

National Home Oxygen Patients Association

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Pulse Oximeters

Glenn Manthey wrote "[Please elaborate on] patient use of finger pulse oximeters and why Medicare won't pay for pulse oximeters. It helps monitor oxygen needs daily (rather than at a doctor's office call) and prevents over oxygen flow. Peace of mind = priceless!"

Glenn thanks for the reminder. It is time to re-publish information on pulse oximeters. A good holiday gift for someone!

Over time there have been inquires about the "best" pulse oximeter for use. Since each person has different requirements and uses for pulse oximetry there is no universal "best" pulse oximeter. However, there are several good oximeters out there that are reliable, easy to use, durable, small, lightweight, and reasonably priced.

Increasingly patients are purchasing pulse oximeters for monitoring their saturations at home. While this is a good adjunct to a home oxygen user's arsenal, remember that it is a tool to assist you with your oxygen needs and must be recognized as such. If utilizing a pulse oximeter at home ask your physician for guidelines when monitoring your saturations. Remember that you also must recognize symptoms and how you are feeling. You should contact your physician if you have increased oxygen needs or are not feeling well. Also check your equipment as there can be equipment failures such as disconnected tubing, freezing liquid tanks or you may have inadvertently run out of oxygen.

Typically oximeters, which are a non-invasive monitor, are used to intermittently monitor blood oxygen saturation. The number displayed is the percentage of hemoglobin that is saturated with oxygen. Hemoglobin is the portion of the red blood cells that carry oxygen. MedicineNet.com provides the following description on how pulse oximeters work on its website:

> A pulse oximeter works by passing a beam of red and infrared light through a pulsating capillary bed [i.e. your finger]. The ratio of red to infrared blood light transmitted gives a measure of the oxygen saturation of the blood. The oximeter works on the principle that the oxygenated blood is a brighter color of red than the deoxygenated blood, which is more blue-purple. First, the oximeter measures the sum of the intensity of both shades of red, representing the fractions of the blood with and without oxygen. The oximeter detects the pulse, and then subtracts the intensity of color detected when the pulse is absent. The remaining intensity of color represents only the oxygenated red blood. This is displayed on the electronic screen as a percentage of oxygen saturation in the blood.

Before purchasing a pulse oximeter, you should consider your needs. Decide how you will be using the unit before you purchase one and how much you are willing to spend. Once you have set up your guidelines then you can begin your research for pulse oximeters that will fit your specific needs.

At this time, Medicare does not typically pay for pulse oximeters as they are not deemed "medically necessary". Perhaps in the future they will become like glucometers (meters to check your glucose levels). If you have a private insurance carrier check with them to see if they will cover the purchase of a pulse oximeter.

If you are considering buying a pulse oximeter, some things to look at when selecting one, prior to purchase are:

- Right size – there are many compact pulse oximeters on the market however a very small unit may not be a good choice if the screen is difficult to read.
- Battery Life – typically most units are defined in hours. Keep in mind that most units used in the home setting are used for short periods and not continuous use.
- Know the type of sensor that will be used – is it part of the unit or are disposable sensors required.
- Accuracy & Reliability – look for companies that have a good track record for quality products and a good reputation.

Here are some popular compact pulse oximeters that are available on the market: *

- Novametrix 512 or 513
- Nonin Onyx 9500 and Onyx II 9550
- Minolta Pulsox 2 or Pulsox 300
- MedAir OxyCheck

NHOPA does not endorse any specific product.

As a reminder, outside influences may affect pulse oximetry readings such as cold fingers, finger movement, or bright overhead lights. Nail polish may also interfere and give inaccurate readings.

Keep in mind that some companies may require a written prescription from your physician to purchase a pulse oximeter.

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The National Home Oxygen Patients Association is devoted exclusively to improving the lives of people across the country who require supplementary oxygen on a regular basis.

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As always, remember to utilize your oxygen according to the prescription written by your physician. If you see your oxygen needs increasing, contact your physician.

Your Questions

James Blake writes "I have recently been put on oxygen, I prefer to own my own oxygen tanks, so if I was out of town I could just find an oxygen supplier and get them filled, but getting them filled is another problem. No one will fill them. I need to know what the procedure is on getting these tanks filled."

James make sure that you always carry several oxygen prescriptions written and signed by your physician when you are traveling. A prescription supports your need for a medical drug – oxygen. You might also ask your current oxygen supplier how they handle out of town visitor refills. They may provide you with information on what to expect when you have your cylinders filled out of town.

Another good source of information for locating suppliers is the Medicare website. This site has a search engine for oxygen suppliers throughout the US and may help you find an oxygen supplier at your destination(s) Go to www.medicare.gov, scroll down to Search Tools on the left side of the site and select "Find Suppliers of Medical Equipment in Your Area: and follow the prompts.

Good luck and thanks for a great question!

Colleen Stripling writes "How often should my 50 foot oxygen tubing be changed if it has no holes or other problems? The change would be for sanitary purposes only."

Colleen thanks for a good question. Some manufacturers will state on the packaging how often the tubing should be changed. Otherwise a good rule of thumb to follow is to change your 50' tubing every 6 months UNLESS it becomes brittle, discolored, has holes in it or becomes unusable for some other reason. Nasal cannulas should be changed monthly per manufacturer's recommendations unless one of the above is also encountered.

Bob Mogue with **Southmedic** wrote "In the September 2007 issue of NHOPA News, Judith Winter wrote a question concerning the use of nasal cannula with The EverGo POC. At the conclusion of the answer to her question there

was reference made to the use of an oxygen mask stating that, 'typically this type of oxygen delivery device (mask) requires a minimum flow of 6 L/min to keep the device flushed of any exhaled CO_2.'

There is an oxygen mask that will deliver low flows, typically 1-5 LPM without CO_2 rebreathing because of the unique design of the mask. This mask, the OxyMask from Southmedic, will deliver continuous flow oxygen from 1-40 LPM and provide fractional inspired oxygen concentrations (F_IO_2) of from 24% to 90% without CO_2 rebreathing at low flows.

Another important factor to consider is that with POCs that require inspiratory effort (breath-detection) to trigger a pulse-dose of oxygen, the user must use a nasal cannula to communicate inspiratory effort from the nose back to the POC. In this situation an oxygen mask, of any type, would not work."

Bob thanks for the feedback and for the clarification that oxygen masks would not work with pulse dose POCs that require a trigger such as the EverGo.

Bob Kern wrote with an interesting question "What equipment or method is available to allow somebody on home oxygen to exercise in water? I need to take both respiratory and cardiac rehabilitation, but joint problems limit the stress that I can apply.

I have a concentrator with a home fill unit and portable tanks. The manufacturer says that the valves on the tanks could be fatally damaged, if dunked. I also have a portable oxygen concentrator, but dunking it would be disastrous."

Bob thanks for a great question. Jeanette Matlock responded with her experience. "[When] I swam a lot it was in a regulation pool with a lifeguard stand in the middle. I used 50 ft of tubing and sat the liquid oxygen tank in the offside of the stand and went around it with the tubing so my tank would not fall over. I did not use bobbers because the tubing floats without any problem."

Another reader secures his tanks to something stationary at the side of the pool to avoid the tank plunging into the pool. He uses bobbers on his tubing not for flotation but to make sure that others are aware of the tubing and do not swim into it.

Bob also visited the University of VA Hospital and was provided with another solution. "They too use tanks tied to something to avoid being pulled into the pool and a long cannula with a Styrofoam water (or pool) noodle. Such noodles are available at [several discount stores] in season and via the Internet at other times. Water can damage the valves on the portable oxygen tanks used by patients, so they have to be kept dry."

Thanks for your follow-up Bob and to Jeanette for her feedback. Other suggestions from readers?

New Products

The following information on new products/companies available on the market is for informational purposes only. NHOPA does not specifically endorse ANY products. Contact your physician for further information regarding your healthcare or the specific company for product information.

Jeanette Matlock made the NHOPA Newsletter aware of an issue that may affect transtracheal oxygen users. Blairex, the makers of Bronchosaline, a product previously recommended for use with SCOOP transtracheal oxygen catheters, is no longer being manufactured. John Goodman, RRT at Transtracheal Systems confirmed this information. He stated that NeilMed is now making a pressurized saline canister to replace the Bronchosaline and that can be used with the SCOOP catheter. The Transtracheal Systems website (www.tto2.com) states "The NeilMed product differs slightly from the previously used pressurized saline canisters." With the difference, Transtracheal Systems and NeilMed state that it is *very* important to read the package insert that accompanies the NeilMed pressurized cans. Currently only a 75 ml (2.53 fl oz) canister is available but Transtracheal Systems states that a larger version will be available from NeilMed in the near future.

The customer service number for NeilMed regarding both availability and/or problems with their pressurized can is 877-477-8633; just ask to talk to someone about the 'SCOOP saline'."

Transtracheal Systems customer service desk is 800-527-2667 ext. 200.

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Flu Shots Guidelines from the American Lung Association

If you or someone you know is in a high-risk category, they should make getting a flu shot this season a priority. Those especially at risk for the flu are:

- People who are 50 years of age and older
- Women who will be pregnant during influenza season
- Young children who are 6 to 59 months of age
- People with chronic medical conditions such as asthma, emphysema, chronic bronchitis, bronchiectasis, tuberculosis, cystic fibrosis, heart disease, chronic kidney disease, diabetes or severe anemia.
- People who have diseases that depress immunity or are having treatments for these conditions
- Caregivers of high-risk individuals
- Residents of long-term care facilities

If you aren't in a high-risk group, though, you can still benefit from getting a flu shot. The American Lung Association says that a flu shot is safe for people with asthma.

Some people should not get vaccinated if they have certain allergies or previous medical conditions. Ask your healthcare provider if it is safe for you to get a flu shot. People over 65 years old should also ask their doctor whether they should also get a pneumonia vaccine for added protection. (www.lungusa.org)

AMAZINGLY SIMPLE HOME REMEDIES.....

1. If you are choking on an ice cube, don't panic. Simply pour a cup of boiling water down your throat and presto, the blockage will be almost instantly removed.
2. Clumsy? Avoid cutting yourself while slicing vegetables by getting someone else to hold them while you chop away.
3. You can avoid arguments with the Mrs. about lifting the toilet seat just by using the sink.
4. For high blood pressure sufferers: simply cut yourself and bleed for a few minutes, thus reducing the pressure in your veins. Remember to use an egg timer.
5. A mouse trap placed on top of your alarm clock will prevent you from rolling over and going back to sleep after you hit the snooze button.
6. If you have a bad cough, take a large dose of laxatives. Then you will be afraid to cough.
7. Have a bad toothache? Smash your thumb with a hammer and you will forget all about the toothache.
8. Sometimes, we just need to remember what the rules of life really are:
   In life, you only need two tools - WD-40 and Duct Tape.
   If it doesn't move but should, use the WD-40.
   If it should not move and does, use the duct tape.
9. Remember: Everyone seems normal until you get to know them.
10. Never pass up an opportunity to go to the bathroom.

♦ ***For up-to-date information and membership applications go to www.homeoxygen.org*** ♦