

# **Your Most Commonly Asked Questions about Oxygen Answered by Expert Lung Professionals**

Through web tracking, we can see how you search (anonymously, of course) for information about breathing, oxygen, and more. We looked at hundreds of oxygen searches, combined them, and identified the ten most common. We then asked these questions of our team of top lung professionals – and here are their answers. Thanks to our BBLW Contributing Professionals for making the time to answer these important questions!

*Please note: Contributing professionals are not responsible, nor liable for information found on the Breathing Better Living Well website. The answers here are not intended as medical advice but information only. We encourage you to discuss this information with your personal physician so he or she can advise you appropriately for your individual situation.*

- 1. What is a normal blood oxygen level?**
- 2. Can I get addicted to oxygen?**
- 3. How do I know when I need oxygen?**
- 4. Can too much oxygen hurt me?**
- 5. Can not enough oxygen hurt me?**
- 6. If I use my oxygen during the night when I sleep, can it carry over into the day?**

- 7. I can't breathe, but my oxygen levels are normal.**
- 8. I am on oxygen, but I am not breathing any better.**
- 9. Can oxygen in my nose get in even when I have clogged sinuses?**
- 10. How long can my oxygen tubing be at home before the oxygen reaching me becomes less effective?**

The first three questions were answered by [Dr. Frank Adams](#).

## **1. What is a normal blood oxygen level? (This is the most commonly asked question)**

Oxygen levels are commonly measured by two techniques. The first is a blood gas in which a blood sample is taken directly from an artery. This is the most accurate assessment of oxygen. The normal oxygen level using this technique is 80-100 (mmHg). The second technique is bloodless and is called pulse oximetry. The result here is not a direct measurement of oxygen but rather represents the percentage of hemoglobin that is saturated with oxygen.

Hemoglobin is a protein in the blood that carries oxygen to the tissues. A light sensor is used which is commonly placed on a fingertip. Pulse oximetry is not as accurate as a blood gas and can be influenced by temperature and circulation. The normal oxygen saturation is 95-100%.

## **2. Can I get addicted to oxygen?**

I do not believe that you can become addicted to oxygen in the sense that one becomes compelled to use it as in alcoholism or heroin addiction. Many patients do become oxygen "dependent"

because their bodies are unable to function without the use of oxygen supplementation. Oxygen is life sustaining and its use has prolonged life and improved its quality in individuals with inadequate levels.

### **3. How do I know when I need oxygen?**

The most common symptom of a need for oxygen would be shortness of breath. When oxygen levels fall in the blood, nerve receptors in the neck recognize the deficiency and send distress signals to the brain. The result is the sensation of shortness of breath and an increase in the number of respirations per minute (rapid breathing). When oxygen levels are low a bluish hue might be noticed at the lips or fingertips which is called cyanosis. Any patient experiencing shortness of breath should have an oxygen measurement.

The next three questions were answered by [Dr. Robert Sandhaus](#).

### **4. Can too much oxygen hurt me?**

There are some very specific situations in which it can be harmful to be on too much oxygen. However, for most people with chronic obstructive lung disease or COPD who receive oxygen through a nasal cannula, the answer is no, too much oxygen won't hurt you. Using too much oxygen is wasteful and can cause dryness and other discomforts.

So what are the situations in which too much oxygen can be harmful? The brain regulates breathing based on the amount of carbon dioxide in the blood. Some individuals with very severe COPD retain carbon dioxide in their blood and the brain begins to then regulate breathing based on the amount of oxygen in the blood. Giving such a person too much oxygen can actually turn off their

drive to breathe and cause life threatening respiratory arrest. Therefore, people with very severe COPD should check with their healthcare provider about whether they are at risk for this type of reaction to too much oxygen.

There are two other situations in which too much oxygen can be harmful. The first is giving high flow oxygen to newborn babies, which can cause blindness. The second is giving 100% oxygen to someone for a very long time, usually through a tube into the windpipe attached to a breathing machine or ventilator. Receiving very high amounts of oxygen over many days in this manner can injure lung cells.

## **5. Can not enough oxygen hurt me?**

If you need supplemental oxygen, not getting enough oxygen to raise your blood levels of oxygen to an appropriate level can have very serious long term effects. Too little oxygen causes the blood vessels in the lungs to constrict making it more difficult for the heart to pump blood through the lungs. As a result, the pressure in the blood vessels feeding the lungs can rise, a condition known as Pulmonary Hypertension. If this goes on long enough the right side of the heart, the side that sends blood to the lungs, can fail, giving you a condition called right heart failure or Cor Pulmonale. In addition, if you don't have sufficient oxygen delivered to the tissues of the body, they can't function as they should. The organs most affected by low oxygen, in addition to the heart, are the muscles and the brain.

## **6. If I use my oxygen during the night when I sleep, can it carry over into the day?**

The oxygen that gets into your blood by using supplemental oxygen leaves your system within several minutes after removing your

cannula. Therefore, although the oxygen you use during the night can have many long-term beneficial effects, the oxygen itself is gone from your system fairly soon after you turn off the oxygen tank or concentrator. Many patients only need oxygen when they sleep and their oxygen levels are fine without supplemental oxygen during the day. But if you need oxygen both at night and during the day, using it only at night, while better than not using oxygen at all, is not sufficient to keep you well oxygenated during the day.

The last four questions were answered by [Respiratory Therapist Helen Sorenson](#).

**7. I can't breathe, but my oxygen levels are normal.**

**8. I am on oxygen, but I am not breathing any better.**

These are common questions and ones we hear all the time. It might make sense that if your O<sub>2</sub> levels are fine, all is right with the world, but that is not always the case.

Questions #7 and #8 are basically the same. Dyspnea, or the sensation of difficult breathing does not always correlate well with the amount of oxygen (O<sub>2</sub>) in the blood - so oxygen levels may be fine, but breathing is hard. When O<sub>2</sub> levels are okay and you may feel like you "can't breathe," your dyspnea is likely caused by anxiety (often caused by the feeling of not being able to breathe)...it is a vicious cycle. This is where pursed lip breathing is most useful, because it slows down breathing, relaxes you and often makes breathing easier. Another hint to decrease the sensation of difficult breathing is to sit in front of a fan - cool air facial stimulation decreases the sensation of dyspnea. Pulmonary rehabilitation patients tell me time and time again that the most important thing they learn from rehab is how to breathe correctly.

## **9. Can oxygen in my nose get in even when I have clogged sinuses?**

That depends on the degree of obstruction/sinus congestion. If the nasal passages are completely swollen/blocked, a cannula might not be as effective but if your sinuses are congested a little, you are likely breathing more through your mouth, then the oxygen going into the nasal passages will be pulled into the lungs by the air coming in through the mouth. I have seen patients put their cannula in their mouth, but that does not usually make the delivery of oxygen to the lungs any more effective.

## **10. How long can my oxygen tubing be at home before the oxygen reaching me becomes less effective?**

The length of the oxygen tubing should not affect the liter flow of oxygen being delivered. It just may take a little longer for the oxygen to get to you initially — like when it is first turned on — but once it is flowing, it should remain constant. Even though oxygen is a gas, we have to think of it in terms of being a liquid — if the pressure at the tank remains constant (which it does until the tank has less than 500 psi), the liter flow, 2 LPM (liters per minute), 3 LPM, etc. will remain constant. Think in terms of a garden hose — if the pressure/flow of water coming out of the faucet is constant, regardless of the length of the hose, the same amount of water will exit the other end. The only thing that may affect oxygen delivery is if there is an occlusion/obstruction in the tubing.