Oxygen Therapy Fact Sheet

Oxygen is an element, a gas, and a drug that can help people who have certain lung diseases. The cells in the body get their energy from the interaction of oxygen with food. The energy produced is used to do everything from breathing, to carrying out bodily functions, to going to the grocery store. Some lung diseases, such as emphysema and sarcoidosis, reduce lung function to the extent that supplemental oxygen is needed to continue normal bodily function. For many people with end stage lung disease, supplemental oxygen allows their bodies to get the oxygen that they need and may also help them is more active.

At all times, the body is taking in oxygen and releasing carbon dioxide. If this process does not happen adequately, the oxygen in the blood will decrease, and the person may need supplemental oxygen.

There are three ways to dispense oxygen in the home. Compressed oxygen gas and liquid oxygen are two ways to have oxygen delivered to the home. Oxygen gas can be compressed and stored in tanks or cylinders of steel or aluminum. These tanks come in many sizes; larger ones are usually left in the bedroom, and smaller ones are used for leaving the house. Liquid oxygen is made by cooling the oxygen gas, which changes it to a liquid form. It is often used by people who are more active because larger amounts of oxygen can be stored in smaller, more convenient containers than compressed oxygen. The disadvantage is that it cannot be kept for a long time because it will evaporate.

In addition, oxygen concentrators are available to deliver higher concentrations in the home. An oxygen concentrator is an electric device about the size of an end table. It produces oxygen by concentrating the oxygen that is already in the air and eliminating other gases. This method is less expensive, easier to maintain, and doesn't require refilling, but it is not portable. Some oxygen concentrators, however, give off heat and are noisy. Back-up methods are necessary in case of a power failure, and the electric bill may rise. For some patients, oxygen concentrators may not deliver adequate oxygen.

For people who do not get enough oxygen naturally, supplements of oxygen can have several benefits. Supplemental oxygen can improve their sleep and mood, increase their mental alertness and stamina, and allow their bodies to carry out normal functions. It also prevents heart failure in people with severe lung disease. Oxygen at very high levels over a long period of time can be toxic and very harmful to one's health; therefore, a doctor's prescription is required.

Oxygen is also being dispensed for recreational purposes at oxygen bars to patrons who believe that inhaling the pure oxygen will cause their bodies to function even better than normal. Inhaling oxygen recreationally is unlikely to have a beneficial physiological effect. Oxygen at high levels can be toxic; however, there is no evidence that oxygen at the low flow levels used in bars can be dangerous to a normal person's health.

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Tips on Oxygen Use

For people with lung disease, supplemental oxygen may be an essential part of their lives. Oxygen is a safe gas and is non-flammable, however, it supports combustion. Materials burn more readily in an oxygen enriched environment.

The American Lung Association offers the following safety tips for oxygen use:

● Avoid open flames in the presence of oxygen use - e.g. matches, cigarette lighters, candles, and burning tobacco. Caution must also be used around other sources of heat, such as electric or gas heaters and/or stoves.

● People using oxygen should avoid using lotions or creams containing petroleum. The combustion of flammable products containing petroleum can also be supported by the presence of oxygen.

● It is important to store cylinders safely - cylinders should be upright and secure, in an approved cart or device for storage.

● Remember when not in use, oxygen supply valves should be turned off.

● Always follow the instructions of your oxygen supply company regarding safe usage.

Following these simple safety tips will allow patients for whom oxygen is a necessity to maintain their health without incident.