

MEDfacts

An Educational Health Series From National Jewish Health®



On the Go with a Portable Oxygen Concentrator (POC)

People with chronic lung disease may need oxygen therapy. Oxygen therapy is used to normalize the oxygen level in blood during sleep, rest and activity and during acute illnesses in the hospital.

What are the benefits of oxygen therapy?

There are many benefits of oxygen therapy. In many adults with chronic lung disease, studies have shown that long-term oxygen therapy has improved quality and length of life. Oxygen can decrease shortness of breath when you are active and allow you to do more.



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What types of portable oxygen systems are there?

There are three systems that can supply oxygen: concentrators, compressed gas and liquid. Each system has a portable system to use. Portable systems can feel very liberating. They allow you to be more active. Many people have questions about portable oxygen concentrators. Although there are a number of portable systems available, this Med Facts focuses on portable oxygen concentrators.

What is a portable oxygen concentrator?

Portable oxygen concentrators are oxygen machines that draw in oxygen with the use of a battery, electricity or DC power, for example, the power port in your car. They are smaller and lighter than stationary concentrators. People often like the portability of portable oxygen concentrators.

Examples of portable oxygen concentrators include:

- AirSep® FreeStyle®
- AirSep® LifeStyle
- Inogen One®
- Respironics EverGo™
- SeQual Eclipse®

Portable oxygen concentrators can vary from 3 to 18 pounds. Many can be carried in backpacks or carts that can be pulled.

What is continuous vs. on-demand (pulse) flow?

Oxygen is often delivered by a small plastic tube called a cannula. The cannula is placed into the nostrils and delivers oxygen to the airways. Oxygen may be delivered continuously through the nasal cannula. Oxygen may also be delivered when you inhale only. This is called on-demand (pulse) flow. Many people are not able to use on-demand flow. This may not deliver enough oxygen to your body when you exercise, sleep and rest. On-demand (pulse) flow is not recommended when you sleep. While asleep, you may not always trigger the system. There are some health conditions that make it difficult use an on-demand system, because the person may be unable to trigger the system (COPD, pulmonary fibrosis, neuromuscular diseases).

How do I know if a portable oxygen concentrator will work for me?

Your oxygen saturation (sat) can be checked using the portable oxygen concentrator you would like to use. The oxygen sat should remain above 88-90 percent when you rest, while you are walking and during sleep. The portable oxygen concentrator you are testing is not adequate if your oxygen sat is below 89 percent during rest and exercise. Your health care provider will write a prescription for oxygen based on testing. Some people purchase a pulse oximeter to monitor the oxygen sat at home, doing different activities and when traveling to different altitudes.

What portable oxygen concentrators have continuous flow of oxygen?

All portable oxygen concentrators provide on-demand (pulse) flow oxygen delivery. The SeQual Eclipse is an example of a portable concentrator that also delivers a continuous flow of oxygen up to 3 liters per minute. There is not a portable oxygen concentrator that will provide over 3 liters of continuous flow oxygen at this time.

What is the difference between liter flow and settings?

On-demand (pulse) portable oxygen concentrators run on settings instead of liter flow. A setting delivers an intermittent fixed volume of oxygen when the system is triggered by your breathing in. The highest on-demand setting a portable oxygen concentrator will go to is a setting of 9. Most have a high setting of 6. A setting of 6 is **not** equal to a liter flow of 6 liters/minute. You need to be tested on your selected portable oxygen concentrator to confirm it is meeting your oxygen needs.

What do you consider with the portable oxygen concentrator battery?

The battery time varies per product, as do settings. Some people may need several batteries to meet their oxygen needs over time. Batteries can be rented through some

oxygen companies. If you would like information about portable concentrators or other oxygen systems, contact your oxygen provider.

Can I purchase or rent a portable oxygen concentrator?

Many oxygen companies are limited in the brand and number of portable oxygen concentrators they rent or have for purchase. Insurance may also determine whether a portable oxygen concentrator is covered. Obtaining a portable oxygen concentrator is often determined by:

- the ability of the oxygen concentrator to meet your oxygen needs
- the availability of the portable oxygen concentrator with the oxygen company
- the insurance coverage

Considering this you may purchase or rent a portable oxygen concentrator with a prescription.

Can I travel with oxygen?

Many people travel while using oxygen. Advance planning is important when considering a trip.

Traveling with Oxygen

What is the cost of oxygen while traveling?

Most insurance companies pay for oxygen in 30-day increments. No other oxygen company can bill your insurance for oxygen, as your local oxygen vendor is billing. If you are taking a trip, ask your oxygen company about the travel policy. Some oxygen companies have national locations and can accommodate your travel. Locally owned oxygen companies may also locate oxygen companies at your destination. They may assist in paying the travel oxygen expense for you. You may have to pay the travel oxygen expense out of your pocket. This cost will vary by location and company policy.

What should I consider when traveling by air?

Many airlines are allowing the use of portable oxygen concentrators to provide in-flight oxygen. There are a number of these devices approved for airline use, including AirSep LifeStyle, AirSep FreeStyle, Inogen One, Respironics EverGo and SeQual Eclipse. Contact your airline to obtain a list of approved devices. Contact your oxygen company and airline at least two weeks before you travel to obtain the required documentation for use of portable oxygen concentrators on their airplanes and at your travel location. You will be required to use the battery on the portable concentrator during the flight. Ask your oxygen company if you can rent or buy enough batteries to last the duration of your flight. The FAA requires enough batteries to run the concentrator for 150 percent of travel time (including layovers).

Where else can I get information about using oxygen?

NJHealth.org provides information on oxygen therapy. National Jewish Health also provides an On the Go with Oxygen class. The internet holds many resources for travel. Information about oxygen therapy may be available in your community from your health care provider, your oxygen supply company, your local American Lung Association, a support group of other people using oxygen in your community or LUNG LINE® at

National Jewish Health.

National Jewish Health offers a variety of programs that can help people with chronic lung conditions. We offer medical evaluations to determine oxygen needs and how best to meet them, other medical therapies and a team of specialists working together to evaluate your medical condition.

Note: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

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