

Newsletter 8/2008 NEF

<u>Lung disease and air travel.....</u>	<u>2</u>
<u> Communication between Airlines and Patients about the use of POC's.....</u>	<u>3</u>
<u> Batteries for POC's.....</u>	<u>3</u>
<u> POC's approved by the FAA.....</u>	<u>4</u>
<u> Oxygen during Air Travel – More Information.....</u>	<u>4</u>
<u>COPD News.....</u>	<u>5</u>
<u> Patients with COPD have little knowledge of their disease.....</u>	<u>5</u>
<u> Creatine does not help patients with COPD undergoing pulmonary rehabilitation.....</u>	<u>6</u>

Lung disease and air travel

Oxygen levels decrease with high altitude. Commercial airplanes fly at such a high altitude that passenger cabins need to be pressurized in order to maintain adequate oxygen levels. The Federal Aviation Administration (FAA) requires airlines to keep the cabin pressure inside of airplanes to an equivalent pressure of 8000 feet or less. This means that oxygen levels on most commercial airplanes are equal to standing on top of a mountain that is 8000 feet high. Oxygen levels at this altitude are around 25% lower than at ground level. This may not cause any problems in healthy people, patients with lung diseases however may struggle with low oxygen levels inside commercial airplanes. For travelers with lung diseases such as chronic obstructive lung disease (COPD) and emphysema it is often necessary to have low oxygen simulation tests prior to air travel in order to determine the need for oxygen supplements onboard an airplane. Patients with heart and lung conditions should consult their clinician and contact their airline well in advance to the desired air travel in order to make arrangements for oxygen supplements on board. Unfortunately commercial air carriers have variable policies in regards to portable oxygen devices leading to confusion and frustration among passengers that have to rely on oxygen supplements during air travel.

New Regulations protects Passengers Using Oxygen Devices on Airplanes

A new ruling was instituted by the U.S. Department of Transportation (DOT) in May this year requiring airlines to accept certain approved portable oxygen concentrators (POC's) aboard flights. The DOT will give airlines time to implement these changes until May 13, 2009. This rule will apply to U.S. air carriers worldwide and to foreign air carriers whose flights begin or end in the U.S. The Department of Transportation has not yet decided whether to require airlines to provide free in-flight medical oxygen to passengers.

Always check with your airline when booking travel to understand how and when these rules are being implemented. The Airline Oxygen Council of American web site (www.airlineoxygenCouncil.org) lists various airlines' policies regarding in-flight oxygen use and equipment.

Communication between Airlines and Patients about the use of POC's

According to the DOT ruling, passengers are expected to inform the air carrier about the intended use of POC's on board while making the flight reservation. Airlines in return are required to give passengers who declare their intention to use a POC aboard the following information:

1. Any requirements for advance check-in. Airlines may require travelers to notify the airline up to 48 hours in advance if the traveler wishes to use a device.
2. Any weight or size limits for devices to ensure they can be accommodated in the aircraft cabin.
3. Any labeling requirements to permit use on board. (In the future the FAA may require device manufacturers to label devices if they are FAA approved.)
4. Airlines may also require one hour advance check-in for flights. However, airlines may not deny boarding on a connecting flight because of this additional hour requirement.
5. Any requirements about contacting the airline regarding the maximum flight duration and battery capacity requirements.
6. The airline may require travelers to provide a statement from a physician stating that the passenger requires the use of a POC.
7. In the event the travel has connecting or codesharing flights, airlines must also inform travelers of any requirements of the other airlines or direct the passenger to contact that airline directly.

Batteries for POC's

The new DOT regulation contains specific directions in regards to batteries that are needed for POCs.

1. The airlines may require travelers to carry enough fully charged batteries required to operate their POC for at least 150 percent of the expected maximum flight duration. This includes the total

duration of the flight from arrival at the gate including any possible delays that may occur during a flight.

2. If oxygen is provided by the air carrier the passenger is not required to carry batteries.
3. Boarding may be denied by the airline if the passenger does not carry enough, properly packed batteries. The airline must provide a written statement on why the airline refused to provide transportation within 10 days of the incident.
4. Airlines are not required to provide priority seating nor are they obliged to provide an opportunity for passengers to plug in their device. The DOT, however, encourages airlines to permit passengers to plug in their devices.

POC's approved by the FAA

AirSep FreeStyle

AirSep LifeStyle

Inogen One

Respironics EverGo

Sequal Eclipse

Oxygen during Air Travel - More Information

Official document published by the Department of Transportation (DOT)

www.regulations.gov, docket number DOT-OST-2004-19482-1300 page 27629

Department of Transportation

www.safetravel.dot.gov

Federal Aviation Association

www.faa.gov

American Lung Association

www.lungusa.org

Alpha-1 Foundation

www.alphaone.org

Airline Oxygen Council of America

www.airlineoxygencouncil.org

American Association for Respiratory Care

www.aarc.org

National Home Oxygen Patients Association

www.homeoxygen.org/airtrav.html

Transportation Security Administration

www.tsa.dhs.gov/travelers/airtravel/specialneeds/editorial_1374.shtm#2

COPD News

Patients with COPD have little knowledge of their disease.

Researchers from Brown University assessed knowledge and attitudes about COPD in a group of 13 patients, eight of whom had been diagnosed with chronic obstructive pulmonary disease (COPD) and nine of whom were current smokers. Most patients with obstructive pulmonary disease have little knowledge of the condition, and many have never heard of it. Many of the patients did not associate the term “lung disease” with anything other than lung cancer. Most participants never previously heard of COPD, but all participants wanted to get more information about COPD. The group of researchers also introduced the concept of 'lung age', an estimate of the age of the lung greater than their real age. Patients believed that knowing their lung age would help them to quit smoking, and make other lifestyle changes to reduce their risk of lung disease.

Lung 2008 May 8, e-publication ahead of print

Creatine does not help patients with COPD undergoing pulmonary rehabilitation.

Creatine is an amino acid that is utilized by the muscles. It is often used by athletes to enhance their muscle performance. Creatine is also thought to be beneficial for patients with muscle disease. Patients with chronic obstructive pulmonary disease (COPD) often suffer from muscle weakness and scientists proposed that creatine may be of benefit for patients with COPD. Sarah Deacon and colleagues from Leicester U.K. assigned 100 COPD patients to receive either creatine supplements, or placebo during seven weeks of pulmonary rehabilitation consisting of aerobic and resistance exercises. The researchers found that pulmonary rehabilitation increases exercise capacity in both groups. However there was no difference between the groups suggesting that creatine was not of benefit. Muscle biopsies of the quadriceps muscle were taken from 31 volunteers but did show any evidence of increased creatine uptake. The authors concluded that patients with chronic obstructive pulmonary disease (COPD) undergoing pulmonary rehabilitation did not get any benefit from creatine supplements.

Am J Respir Crit Care Med 2008; 178: 233-239