

# Will I Need Oxygen When I Fly?

Respiratory

### Introduction

This leaflet is intended for patients who have been asked by their doctor to undergo a fit to fly test to show how well their lungs can be expected to work during a flight on a commercial aircraft. You are advised not to book or pay for any flights until you have had the results of the test.

### What is a Fit to Fly Test?

This simple test, which is sometimes called a Hypoxic Challenge Test, will inform your doctor about your blood oxygen levels whilst in an aeroplane.

The air we breathe at sea level contains 21% oxygen. Typically commercial aircraft are pressurised to between 5,000 and 7,500 feet. At these high altitudes the equivalent oxygen level is around 15%.

The same principle is experienced when climbing up a mountain. The air is thinner (has less oxygen) the higher up you go so the lungs have to work harder.

The aim of the test is to expose your lungs to these conditions; in other words, breathing 15% oxygen instead of 21%.

# Why do I need this, test?

Patients with medical conditions associated with low oxygen levels in the blood, such as respiratory disease may not tolerate the lower levels of oxygen and may need additional oxygen during the flight. In some cases, patients are deemed unfit to fly if their oxygen requirements are too high or their lungs are too poorly. Your GP or consultant will advise you whether you are fit for air travel after considering all aspects of your health.

### What are the benefits of the test?

Your doctor will use the information from the test together with other clinical information to decide whether you are firstly fit to fly and secondly if you require any additional oxygen for the duration of the flight.

You will be responsible for making the necessary arrangements with your airline or travel agent. However, your doctor will be able to provide written confirmation of your oxygen needs and the flow rate at which it should be given to you.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

Review Date 14.01.2025 Date Produced 2018 MI\_4682514\_13.04.22\_V\_2

# Are there any risks?

The test is carried out under resting conditions and you will only be required to breathe normally. When breathing the reduced level of oxygen, some patients experience feeling light headed or notice they are breathing faster and/or deeper. You will be asked about any symptoms during the test. The vast majority of patients have the test and have no significant symptoms to report.

As stated earlier, we will be required to take a sample of blood from your earlobe to measure your blood oxygen level. This is a relatively painless test. Before the pin prick is performed your earlobe will be warmed using a warming cream (the same creams are commonly used as a muscle rub for muscle aches and strains).

### Is there a different test that I can have?

No, there is no other test that would give us this information about your blood oxygen levels during a flight.

#### Do I have to have this test?

No. You do not have to have this test, but if you do not have it we will not be able to pass important information to your doctor.

### How do I prepare for my test?

To ensure the test is carried out under the best possible conditions you should be feeling well and your health should be stable. If you are feeling unwell or if you have had a chest infection at the time of your appointment, then please ring the Respiratory Centre on 01902 695061 and ask to speak to one of the Respiratory Physiology team for further advice.

Please also ensure you continue to take all your medications as usual, including inhalers. You can eat and drink normally prior to the test.

#### What should I wear?

You should wear normal comfortable clothing and footwear. Please do not wear any nail varnish or false nails as we will need to put an oxygen probe onto your finger.

# How long do the tests take?

Typically the test takes between 60 - 90 minutes.

# How is the test performed?

The aim of the test is to create similar conditions to those on board an aircraft. Before the test begins, the physiologist will explain the test to you in detail and will answer any questions you may have. During the test, you will be seated, an oxygen finger probe (called an oximeter) will be attached, we will also obtain a sample of blood via a pin prick from your earlobe. This will provide us with information on your blood oxygen levels at sea level (breathing 21% oxygen).

To simulate the lower levels of oxygen experienced during a flight we will ask you to breathe 15% oxygen through a face mask for 20 minutes. During this, we will keep a close eye on your blood oxygen levels by monitoring the readings from the oximeter probe on your finger.

After the 20 minutes, another blood sample will be obtained again from your earlobe and the oxygen levels measured.

The fit to fly assessment may also include a simple walk test. In some patients with specific lung conditions we may also need to find out what happens to your oxygen levels when you walk. You may be asked to walk for a period of six minutes up and down a flat corridor between and around two plastic cones at either end of the corridor. Your oxygen levels will be monitored throughout. The aim is to see firstly how many laps you can manage, walking at a comfortable pace for you but also to see if your oxygen levels fall when you walk. You will be able to stop and rest at any point during the test.

### When will I hear about my results?

A copy of the test report and a letter summarising the results and their recommendations will be sent to both you and your doctor. We will endeavour to process your results within a week of you having your test. A copy of the report will also be filed within your hospital patient record.

It is important for you to consider that the test results may become invalid if there is any change in your medical condition between the date of the test and the date of air travel.

It is also important to note that the test cannot exactly reproduce the flight environment as this can be influenced by changes in flying altitude and also the duration of the flight.

Whether or not you are fit to fly with or without oxygen is a doctors decision.

We recommend that you obtain the opinion of a doctor before booking your flight.

## Additional information for the use of oxygen during the flight.

Policies for oxygen use vary between airlines so you should check before travelling.

We recommend that if you require in-flight oxygen that you should book flights with an airline that provides in flight oxygen.

You may not be allowed to take an oxygen cylinder on board a flight, so you may need to rely on the airline to provide your oxygen.

Oxygen may not be available during take-off and landing.

Some airlines may allow you to use a portable oxygen machine sometimes referred to as an oxygen concentrator, although there may be rules about which models can be used.

Portable oxygen concentrator devices are capable of providing 1-5 litres oxygen per minute but need an external power supply during long haul flights.

### Contact the airline in advance.

Some airlines may only provide face masks for oxygen delivery, despite nasal prongs or cannula being more comfortable for many people.

Oxygen is usually delivered at a rate of 2 – 4 litres per minute and patients that require a different flow rate to this must make arrangements in advance for their individual needs.

Airlines are usually happy to accommodate patients' needs but may ask for a letter from your doctor. Make sure you allow enough time for this to be organised before your trip. The airline will also let you know if there is an extra charge for your medical needs.

## What should I do if I need to organise my own in flight oxygen?

There are a number of private companies that can assist you with obtaining oxygen for your flight. Please discuss this with either your travel agent or the airline, or alternatively get in contact with the British Lung Foundation (BLF) for further advice.

www.BLF.org.uk

# A few other tips before you fly off...

Ask your doctor well in advance for a letter to take in your hand luggage with details of your medical condition.

Be sure to pack your inhalers and other medication.

If you get breathless when walking, make sure you arrange for help at the airport.

The distance between the check-in lounge and departure gates can be long. Disabled assistance at airports should be arranged at least 48 hours before you travel.

When you are on the plane try to move every hour or so to exercise your legs.

Drink plenty of water and non-alcoholic drinks during the flight.

### Can I find out more?

We hope that this booklet has answered questions that you may have about your fit to fly test. Please do not hesitate to contact us if there is anything further you would like to know. You can speak to one of the physiologists on 01902 695061.

### Reference

British Thoracic Society (BTS) Standards of Care Committee (2002): Managing passengers with Respiratory disease planning air travel.

If you have any questions or if there is anything you do not understand about this leaflet please contact:

#### The Respiratory Centre;

New Cross Hospital; Wolverhampton; WV10 0QP

Telephone: 01902 695061

Office opening times Mon – Fri, 8.30am – 4.30pm

#### **English**

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

#### Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

#### **Polish**

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

#### **Punjabi**

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

#### Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

#### **Traditional Chinese**

如果您需要以其他方式了解信息,如易读或其他语种,请告诉我们。 如果您需要口译人员或帮助,请告诉我们。