

# **Hypoxic Challenge (“Fit to Fly”) Assessment**

Information for patients, relatives and carers

① For more information, please contact:

## **Cardio-Respiratory Department**

The York Hospital, Wigginton Road, York, YO31 8HE  
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## **Introduction**

This leaflet is intended for patients who have been asked by their doctor to undergo an investigation into how well their lungs can be expected to work during a flight on a commercial aircraft. It can help your doctor to understand whether you may benefit from using oxygen when you fly.

The assessment will be carried out by a Respiratory Clinical Physiologist in the Cardio-Respiratory Department which is on the first floor of the Out Patients area.

If you require further information or clarification of any of the following, then you can contact the department during office hours on 01904 726525. At other times a voicemail facility is available if you wish to leave a message and we will ring you back as soon as possible.

## **What is a hypoxic challenge (“Fit to Fly”) assessment?**

The air that we breathe at sea level contains 21 percent oxygen. However, at normal cruising height the cabin of commercial aircraft are pressurised to about 8,000 feet and so the equivalent amount of oxygen available to you to breathe is only about 15 percent. The principal is just the same as going up a fairly high mountain where the air is thinner and so your lungs have to work harder. The aim of the investigation is to simulate the conditions your lungs will be exposed to when you fly.

## **What are the benefits/alternatives?**

Your doctor will use the information from the assessment together with all your other clinical details to decide if it necessary to recommend that you are provided with supplementary oxygen when you fly. Oxygen administered in these circumstances is usually via a tube to your nose and at a flow rate of either two or four litres a minute.

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

As an alternative to this investigation your doctor could assess you in other ways such as asking you to perform a walking test but methods such as these do not provide the same direct information as in the procedure described on the next page.

## **The procedure**

As mentioned above the aim of the investigation is to create similar conditions to those on board an aircraft. To achieve this you will be asked to breathe 15 percent oxygen through a mask for about 20 minutes.

Throughout the procedure the oxygen level in your blood and heart rate will be monitored using a device placed on your finger. A small sample of blood will also need to be taken either from an artery in your wrist or the equivalent sample from you ear lobe. This is required both before and after the 20 minutes.

If the oxygen in your blood is too low, then you may benefit from using supplementary oxygen when you fly. To help your doctor to recommend the correct level of oxygen, we may need to repeat the test on two litres of oxygen (via the nose). If more is required, we can repeat the test on a maximum of four litres of oxygen.

This will all be fully explained when you attend for the investigation.

**Please allow up to 75 minutes for your appointment**

## Is the assessment safe?

The test is carried out under resting conditions, and you will only be required to breathe as you would normally. When breathing the reduced level of oxygen some patients may feel a little light headed or notice that they are breathing faster and/or deeper. You will be asked about symptoms during the test and the vast majority of patients have none to report.

As stated earlier the assessment does involve taking a blood sample from an artery in your wrist which in some cases can be painful. There are other small risks to this invasive procedure, but these will be assessed and discussed in accordance with Trust policy and protocols immediately before a sample is taken in order that risks can be minimised.

## What preparations are needed?

In order that the assessment is carried out under the best possible conditions you should be feeling **well**, and your health should be stable. If you **are feeling unwell have a chest infection, or are on any temporary medication e.g., steroids or antibiotics at the time** of your appointment, please ring the Cardio-Respiratory Department (01904) 726525 for further advice.

Also, to ensure that you are at your best please take all of your medications as usual, including inhalers.

You are advised not to book or pay for any flights until you have had the results of the assessment.

## **Results**

Only your doctor can decide if you will require supplementary oxygen during a flight and consequently, we cannot give you the results on the day of your assessment.

The results will be sent to your doctor, and they will write to you regarding their recommendation and how you should proceed.

## Tell us what you think of this leaflet

We hope that you found this leaflet helpful. If you would like to tell us what you think, please contact: Muhammad Khan, Highly Specialist Clinical Respiratory Physiologist, The York Hospital, Wigginton Road, York, YO31 8HE, or telephone 01904 726525.

## Patient Advice and Liaison Service (PALS)

PALS offers impartial advice and assistance to patients, their relatives, friends and carers. We can listen to feedback (positive or negative), answer questions and help resolve any concerns about Trust services.

PALS can be contacted on 01904 726262, or email [yhs-tr.patientexperienceteam@nhs.net](mailto:yhs-tr.patientexperienceteam@nhs.net)

An answer phone is available out of hours.

## Teaching, training and research

Our Trust is committed to teaching, training and research to support the development of health and healthcare in our community. Healthcare students may observe consultations for this purpose. You can opt out if you do not want students to observe. We may also ask you if you would like to be involved in our research.

## Leaflets in alternative languages or formats

Please telephone or email if you require this information in a different language or format, for example Braille, large print or audio.

如果你要求本資 不同的 或 式提供 , 電或發電

Jeżeli niniejsze informacje potrzebne są w innym języku lub formacie, należy zadzwonić lub wysłać wiadomość e-mail

Bu bilgileri değişik bir lisanda ya da formatta istiyorsanız lütfen telefon ediniz ya da e-posta gönderiniz

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