

Location: Chest Clinic (Clinic 3), St James Wing

# Hypoxia Altitude Simulation Test

**This leaflet explains more about your appointment for a hypoxia altitude simulation test assessment and what you can expect when you come to your hospital appointment.**

**If you have any further questions, please speak to a consultant or nurse caring for you.**

## Why do you need a Hypoxic Altitude Simulation Test?

The air we breathe at ground level contains 21% oxygen but when we travel by air the decreased atmospheric pressure at increasing altitude makes the oxygen levels in the air drop to the equivalent of 15%. If you suffer from lung disease this drop in oxygen may make you breathless or cause other problems which can be dangerous to your health. A flight assessment can help to identify if you may develop such problems. We can try to prevent potential problems by giving you additional oxygen if it is appropriate.

## What does the test involve?

The aim of the test is to create similar conditions to those on board an aircraft. To achieve this you will be asked to breathe a gas mixture which contains 15% oxygen for up to 20 minutes. During the test we will monitor your pulse rate and oxygen levels and we will take a small sample of blood from your ear lobe.

If your oxygen levels fall significantly, we will give you additional oxygen to breathe until your blood oxygen levels remain stable.

As part of the test several samples of blood will be taken from your ear lobe and analysed to provide further information about your blood oxygen levels. The test will take approximately one hour to complete. The length of the test will vary slightly depending on your initial blood oxygen level and whether we need to administer additional oxygen. You will then be reviewed by a clinician after the test.

## What are the risks?

It is rare but you may feel some discomfort or sharpness when the blood is being taken and you may experience some bruising of the ear lobe area afterwards. There are no known side effects associated with this test. If you do have any worries about the test you can speak to the nurse who will be happy to discuss any concerns with you.

## Are there any alternatives?

There is no other test that would give us this information about your blood oxygen levels.

## How can I prepare for a Hypoxia Altitude Simulation Test assessment?

- Please continue taking all your medication, including inhalers, as normal.
- You can eat and drink prior to this test.
- Please remove any nail varnish/false nails from your fingernails as we will need to put a probe on your finger to measure your oxygen levels. You should also remove any earrings.
- **You are advised not to book or pay for any flights until you have had the results of this test.**
- **Please remove oxygen at least 30 minutes before your appointment if you use oxygen at home.**

## What happens after the Assessment?

The consultant will decide whether you will need to have extra oxygen during a flight, usually on the day of the test and will inform you of the results.

**Please note: It may be recommended that you should fly with oxygen but you may also have a recommendation that you should not fly.**

## What do I need to do after I go home?

If you need oxygen for the flight, you will need to contact the airline to discuss the provision of oxygen and they may give you a form to complete. This will include a section for the clinical team and you will need to bring this to the chest clinic for completion.

Allow plenty of time to book your flight, as completing each step may take longer than you expect. There may be an additional cost for oxygen on a flight and at your final destination. This is **your responsibility** to arrange the oxygen with the necessary airlines and final destination, not the Chest Clinic staff.

## Important information

- It is very dangerous to go on a flight if you have been advised against this. You could experience serious breathing difficulties.
- If you do not attend for this test the consultant will not be able to advise you on air travel in relation to your lung condition.
- **Your home oxygen supplier will not be able to provide oxygen outside of the UK.**
- It is your responsibility to ensure you have the adequate paperwork completed in place before you travel, not the medical staff in the chest clinic.

## Useful sources of information

British Lung Foundation

[www.blf.org.uk](http://www.blf.org.uk)

European Lung Foundation

<https://www.europeanlung.org/en/lung-disease-and-information/air-travel/>

## Contact us

If you have any questions or concerns about the fitness to fly assessment please contact the Respiratory nurses on 020 8672 1255 ext. 1329 – Monday – Friday 09.00-17.00

Team email: [stgh-tr.StGeorgesRespiratoryNurses@nhs.net](mailto:stgh-tr.StGeorgesRespiratoryNurses@nhs.net)

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit [www.stgeorges.nhs.uk](http://www.stgeorges.nhs.uk)

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## Additional services

### Patient Advice and Liaison Service (PALS)

PALS can offer you on-the-spot advice and information when you have comments or concerns about our services or the care you have received. You can visit the PALS office between 9.30am and 4.30pm, Monday to Friday in the main corridor between Grosvenor and Lanesborough Wing (near the lift foyer).

**Tel:** 020 8725 2453 **Email:** [pals@stgeorges.nhs.uk](mailto:pals@stgeorges.nhs.uk)

### NHS Choices

NHS Choices provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health.

**Web:** [www.nhs.uk](http://www.nhs.uk)

### NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones.

**Tel:** 111



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