

## Patient Information

# Respiratory Physiology

## Hypoxic challenge test

### What is a Hypoxic challenge test?

This test assesses whether you need supplementary oxygen when flying. In an aeroplane the cabin pressure is reduced from 21% at ground level to 15% in the air. It can mean that some people therefore require extra oxygen to be able to fly.

### Preparing for the test

#### On the day of your appointment:

- Please take all your medication including inhalers as normal.
- The test will last up to 90 minutes depending on whether oxygen is required.

### During the test

- Some spray will be put on your ear lobe to increase the blood flow.
- A blood sample will then be taken to check the amount of carbon dioxide and oxygen in your blood when you are at rest.
- Using a facemask, you will then breathe a reduced oxygen mixture of 15%. This simulates the conditions of being in the air on an aeroplane.
- Your blood oxygen levels and heart rate will be monitored for 20 minutes.
- Whilst you are breathing the 15% oxygen, a second blood sample will be taken. This may be taken sooner if your oxygen level drops too much.
- If during the test your blood oxygen levels go down, extra oxygen may be added to see if your blood oxygen levels return to normal.

### After the test

The report is sent back to the consultant/doctor who requested it who will complete any paperwork needed for the airline. **Please bring any paperwork issued from your airline with you to your appointment. The cost for this is currently £184.00 up to April 2025** as it is assessed as a private patient tariff.

### Further information

#### European Lung Foundation (ELF)

442 Glossop Road, Sheffield, S10 2PX. [0114 322 0635](tel:01143220635)

[Email the European Lung Foundation](#)

#### Asthma + Lung UK

18 Mansell Street, London, E1 8AA. [0300 222 5800](tel:03002225800)

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