

Hypoxic Challenge Studies

This test looks at how safe it will be for you to fly and what you will require in order to fly safely.

This test simulates the Oxygen concentrations found during flying. It does not simulate the pressure during flying.

This test will require taking a capillary Blood sample. This is a very simple blood test which is used to see what different gases are contained in your blood. When you breathe you take in Oxygen and breathe out Carbon Dioxide, both these gases are vital for the process of breathing and the levels contained in your blood are carefully controlled by your lungs. Sometimes during flying at altitude your blood gas levels change which can leave you feeling uncomfortable and breathless. We do a Hypoxic challenge test to ensure that this doesn't happen

When you attend for the test the healthcare scientist will explain the procedure to you. Firstly some special cream will be applied to your earlobe. This will have the effect of warming your ear and encouraging good blood flow into the capillaries. This will be left on for approximately 10 minutes. Once your ear has warmed sufficiently the cream will be wiped off and a small lancet will be used to make a small scratch on your earlobe.

The blood will be collected into a thin glass tube and taken for immediate testing.

This will be performed several times through your visit.

The test will also entail you breathing through a mask for thirty (30) minutes. This mask will be delivering you the same Oxygen concentration as you will receive during your flight (15%).

During this time the Healthcare Scientist will be monitoring your Oxygen levels using a little device called an Oximeter.

After the thirty minutes have elapsed another blood sample from your earlobe will be taken.

A decision will then be made as to whether you may require Oxygen through your flight. If this is the case a further test will be performed.

This will again entail you breathing through a mask for thirty (30) minutes, this time we will also be delivering Oxygen into the mask.

Again throughout this we will be monitoring your oxygen levels.

Another blood test will be taken at the end of the thirty minutes.

Once we have collected enough samples we will ensure that your earlobe has stopped bleeding before allowing you to go home. Plasters or dressings are will be applied and it is recommended to wear this overnight.

Further information and advice can be obtained from:

NHS Direct online

www.nhsdirect.nhs.uk

British Lung Foundation:

www.lunguk.org

**Association for Respiratory Technology and physiology
(ARTP)**


www.artp.org.uk

MTW NHS Trust is committed to making its patient information accessible in a range of languages and formats. If you need this leaflet in another language or format please ask one of your clinical care team or the PALS Team. We will do our best to arrange this for you.

Patient Advice and Liaison Service (PALS)

If you would like to comment on Trust services, have concerns or need information, you can contact the Patient Advice and Liaison Service (PALS). PALS will listen to your views and using a wide range of contacts and resources, help find ways of resolving any queries or difficulties. The PALS Team can be contacted at Maidstone or Kent and Sussex Hospitals, Monday to Friday 10.00am to 4.00pm.

Telephone: Maidstone Hospital

 01622 224960

Tunbridge Wells at Pembury Hospital

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