

Information for patients attending for blood gas testing

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We would like to invite you to attend for a blood gas test as requested by a consultant. This patient information will explain what a blood gas test involves and answer some questions you may have. It will also explain why this test is necessary and inform you of the risks that are involved with performing the test.

What is a blood gas test?

A blood gas test is a specific blood test used to measure the gases (i.e. oxygen and carbon dioxide) in your blood.

Why do I need the test?

Measuring the gas levels within the blood is used to assess how efficiently your lungs are working. Abnormal oxygen or carbon dioxide levels within the blood can indicate the need for some support with your breathing which could be in the form of oxygen or ventilation therapy.

What does the test involve?

The method used to obtain the blood gas could be from the wrist which is known as an arterial blood gas (ABG), or via the earlobe, known as a capillary blood gas (CBG). The method used will depend on what the consultant has requested and what is most appropriate for you as an individual.

An ABG involves first preparing the wrist by cleaning the area and checking for sufficient blood flow before inserting a needle into the skin at the wrist to collect a blood sample from the radial artery. The needle will then be removed once enough blood has been collected for analysis in the blood gas analyser.

A CBG involves first preparing the ear by warming it using a cloth and warm water until the ear feels warm and appears more red in colour. The healthcare professional will then prick the earlobe with a small incision device to puncture the skin. The blood from this puncture site is then collected in a small plastic tube to be analysed by a blood gas analyser.

How long will the test take?

The length of the appointment will depend on which tests are requested. This can vary from 20 to 60 minutes. The blood gas test alone can take up to 20 minutes.

Will the test cause any harm?

Due to the nature of the tests and the requirement to puncture the skin, this can cause some minor pain and discomfort whilst obtaining a blood sample. You can terminate the test at any point and you will be supported by a trained member of the team throughout each stage of the procedure.

How will I be informed of the results?

After the test is performed the results will be sent to the referring consultant who will discuss these with you. Any further testing or treatment decisions will also be made by the consultant.

Please allow ample time to arrive for your appointment. Our aim is to see you as soon as possible but we will let you know if there are any delays. If you have any further questions or would like more information please do not hesitate to contact us on the telephone number provided on your appointment letter.

Additional sources of information:

[Blood tests | Asthma + Lung UK](#)

United Lincolnshire Teaching Hospitals NHS Trust endeavours to ensure that the information given here is accurate and impartial.

If you require this information in another language or alternative format, please email the Patient Information team at ulth.patient.information@nhs.net