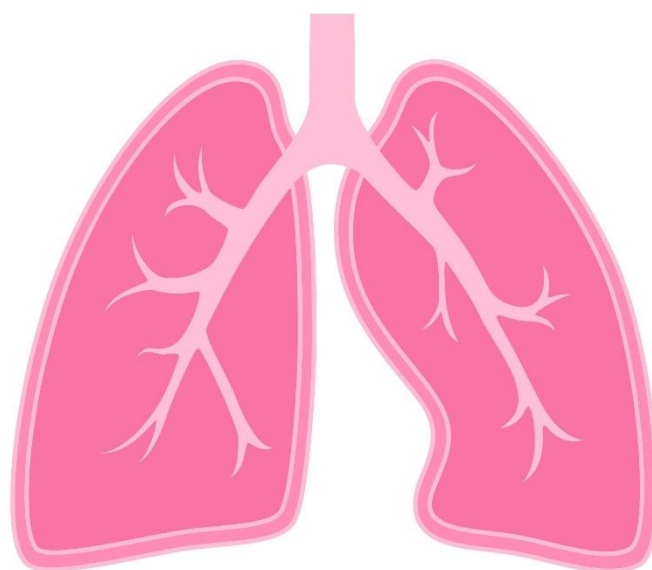


Endobronchial ultrasound (EBUS) lung test

Information for patients

This leaflet answers some of the questions you may have about having a specialist lung biopsy procedure called an endobronchial ultrasound (EBUS). It explains how the test is done, the risks and the benefits of having the test and what you can expect when you come to hospital. If you have any questions or concerns, please do not hesitate to speak to the doctors or nurses caring for you.



Confirming your identity

Before you have a treatment or procedure, our staff will ask you your name and date of birth and check your ID band. If you do not have an ID band we will also ask you to confirm your address. If we do not ask these questions, then please ask us to check. Ensuring your safety is our primary concern.

What is an EBUS?

An endobronchial ultrasound (EBUS) is a type of bronchoscopy (camera test) to examine the lungs. It allows the doctor to see the lymph nodes (glands) in the centre of the chest using a special scanner on the end of a miniature camera. During the test we can take tiny samples from the lymph nodes and send them to the laboratory to look for any abnormalities.

Why do I need an EBUS?

An EBUS is usually suggested if we see enlarged lymph nodes in the chest when you've had a scan. Taking some small samples of these lymph nodes helps your doctor determine if anything is wrong and what the most appropriate treatment is.

Do I need a general anaesthetic?

No. You do not need a general anaesthetic for this procedure. We will give you a sedative as an injection into a vein before the procedure starts. This helps you relax and feel sleepy but you are still awake during the procedure. Some people may not remember much about the procedure because of the sedative.

We also give local anaesthetic spray to the back of your throat, voice box and windpipe so that you feel more comfortable during the procedure. The spray may make you cough a lot at first but this will settle down. No pain is felt from the inside of the lungs even when biopsies are taken.

What happens during the test?

We will ask you to lie on a bed, usually lying flat. You will be attached to a heart rate, blood pressure and oxygen monitor. We will ask you to put a mouth guard between your front teeth, to protect them. Once we sedate you, the bronchoscope (camera) will be passed gently to the back of your throat and into your lungs. More local anaesthetic is applied which will make you cough and it may feel like something has 'gone down the wrong way'. This feeling will settle down quickly. You will not be able to talk during the procedure.

The bronchoscope (tube camera) is only about as thick as a pencil and it is very flexible. There is plenty of room to breathe around it. We will monitor you closely at all times during the procedure and give you extra oxygen.

To take samples we pass a very fine needle into the lymph glands but this does not hurt. Several samples will be taken and the procedure will take approximately 45 minutes, although the time spent with the camera inside you may be shorter.

Are there any risks?

EBUS is a very safe procedure, but there are sometimes side effects and, rarely, complications which you need to be aware of to decide if you agree to have this procedure. These will also be discussed with you on the day of the EBUS.

Side effects

Coughing is very common during the procedure and for a short while after. It is quite common to cough up small amounts of blood after the procedure, but this will usually settle down quickly. You may have a sore throat for a day or two after the procedure.

Complications

A significant complication requiring extra observation or treatment may occur in about 1 in 100 EBUS procedures performed. Possible complications include:

- significant bleeding
- collapse of the lung (pneumothorax)
- infection in the lung
- allergy to a medicine
- an irregular or rapid heart rhythm
- breathing difficulties or low oxygen levels in patients who may have a severe underlying lung disease

Very rarely, around 0.07% of patients may need to have a tube inserted to help their breathing and then need to stay in intensive care after the procedure. Death following an EBUS is very rare. It is estimated it may occur after 1 in every 10,000 procedures. The risk may be greater if there are already serious underlying heart and lung diseases and this is taken into account when weighing up the risks and benefits of the procedure.

Blood thinners

To reduce the risk of any complications, we will check some routine blood tests to ensure your blood is clotting correctly to minimise the risk of bleeding. It is important to tell your doctor or nurse about any medical problems or allergies and any medication you are taking.

You will need to stop most blood thinners (anticoagulants or antiplatelets) before the procedure. It is important you discuss this with your doctor or nurse as the time at which you need to stop these blood thinners will vary with each drug. Please let your doctor or nurse know if you are taking any of the following medications:

- clopidogrel (Plavix), prasugrel (Efient) or ticagrelor (Brilinta)
- warfarin
- dabigatran (Pradaxa), rivaroxaban (Xarelto), apixaban (Eliquis), edoxaban (Lixiana)
- heparin injections: enoxaparin (Clexane), dalteparin

Diabetes medication

- **Tablets for diabetes:** do not take them on the morning of the test
- **Insulin for diabetes:** discuss this with your doctor. We would usually ask you not to take any short acting insulin six hours before the test but you would normally take any long-acting insulin at a reduced dose (2/3 of normal dose).

On the morning of the test please take your other usual medications – except blood thinners (see advice above) – with sips of water.

What happens afterwards?

After the EBUS we will take you to the recovery area. You will be monitored for 1 to 2 hours. You will not be able to eat or drink until two hours after the test because of the numbness in your throat.

We do not routinely discuss the results of the examination with you before you go home. This is because the full results will take several days to be available.

You will normally be allowed to go home after two hours. Because you will have received a sedative, it is very important that you:

- **are accompanied home by a relative or friend**
- **have someone stay with you overnight**
- **do not drive or operate machinery for 24 hours**
- **should not drink alcohol for 24 hours**
- **do not sign legally binding documents for 24 hours**

If you are unable to have someone accompany you home or stay with you overnight, please let us know so we can arrange for you to stay overnight in hospital. We need to know this well in advance. If we only find out on the day we may have to cancel your procedure.

When will I know the results?

You will be contacted about an outpatient appointment within two weeks of the EBUS to discuss the results with your team.

What do I need to do on the day of the EBUS?

Eating and drinking

You should not eat or drink anything for six hours before the test. If you do, we may have to cancel your procedure on the day. You may have sips of water up to four hours before the test.

Travel

Please arrange for someone to bring you to the hospital and take you home two hours after the test. Please contact us if it is impossible for you to make travel arrangements. The EBUS will be performed at the Princess Royal University Hospital in the Endoscopy unit, unless you are told otherwise.

Can I reschedule?

If you are unable to attend your scheduled Endobronchial Ultrasound (EBUS) appointment, please notify the team at least 24 to 48 hours in advance on 01689 863104 or 01689 863822

We have waiting lists and limited slots available each week for the procedure. Your timely notice will allow us to offer the slot to another patient.

Who can I contact with queries or concerns?

If you have any questions or worries, please do not hesitate to ask. If you would like to discuss your test with the doctor that arranged it, please call the Lung Clinical Nurse Specialist on 01689 864713.

MyChart

Our MyChart app and website lets you securely access parts of your health record with us, giving you more control over your care. To sign up or for help, call us on 020 3299 4618 or email kings.mychart@nhs.net. Visit www.kch.nhs.uk/mychart to find out more.

Sharing your information

King's College Hospital NHS Foundation Trust has partnered with Guy's and St Thomas' NHS Foundation Trust through the King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at Guy's or St Thomas' hospitals. King's College Hospital and Guy's and St Thomas' NHS Foundation Trusts share an electronic patient record system, which means information about your health record can be accessed safely and securely by health and care staff at both Trusts. For more information visit www.kch.nhs.uk.

Care provided by students

We provide clinical training where our students get practical experience by treating patients. Please tell your doctor or nurse if you do not want students to be involved in your care. Your treatment will not be affected by your decision

PALS

The Patient Advice and Liaison Service (PALS) is a service that offers support, information and assistance to patients, relatives and visitors. They can also provide help and advice if you have a concern or complaint that staff have not been able to resolve for you. They can also pass on praise or thanks to our teams.

Tel: 020 3299 4618

Email: kings.pals@nhs.net

If you would like the information in this leaflet in a different language or format, please contact our Interpreting and Accessible Communication Support on 020 3299 4618 or email kings.access@nhs.net

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