

Patient information factsheet

Having an endobronchial ultrasound (EBUS)

We have given you this factsheet because you are due to have a procedure called an endobronchial ultrasound (EBUS). It explains what an EBUS is and what it involves so that you know what to expect. We hope it will help to answer some of the questions you may have. If you have any further questions or concerns, please contact us using the details at the end of this factsheet.

What is an EBUS?

An EBUS is a procedure that allows us to look into your lungs and take samples of cells from the glands or abnormal lumps in the centre of your chest.

It is performed using a bronchoscope (a thin tube-like instrument that has a small camera at its tip) and an ultrasound probe (a device that uses high frequency sound waves to create detailed pictures of the lungs and structures outside of the airway walls). Using ultrasound allows us to take samples from areas of the chest that could otherwise be difficult to reach, such as next to a blood vessel.

An EBUS is usually carried out as a day case procedure, which means that you can go home the same day. However, if you are travelling from the Channel Islands, you will need to stay in hospital overnight after your procedure. Please read the section 'How do I prepare for my procedure?' for more information.

Why do I need an EBUS?

The doctor who referred you for an EBUS will explain why you need this test.

Common reasons for carrying out an EBUS:

- To investigate large glands in the middle of the chest
- To identify and diagnose conditions such as tuberculosis or sarcoidosis
- To diagnose lung cancers that lie outside the main airways within the lung
- To determine if an individual cancer has spread to the glands in the middle of the chest (this alters the type of treatment that may be offered)

How do I prepare for my procedure?

Before your appointment

Contact the endoscopy unit on **023 8120 6066** as soon as you receive your appointment letter if you:

- are unable to keep your appointment
- take any medication that thins your blood (please see 'Medication' section below)
- have had a heart attack within the last six weeks
- need oxygen at least 16 hours a day
- have recently had or been exposed to tuberculosis
- have diabetes

If you are coming from the Channel Islands

You must be prepared to stay overnight in hospital and fly back the next day. This is in case there are medical issues during or after your procedure. Please contact your local liaison team in the Channel Islands to arrange travel and accommodation for you.

Please contact us to check that an overnight bed has been arranged for you.

If you are coming from the Channel Islands, please remember to:

- bring an overnight bag with you
- leave valuables at home where possible

On the day of your procedure

Eating and drinking

You must not eat or drink anything (including water) for 4 hours before your procedure.

Medication

You may continue taking your usual medication unless advised otherwise by your doctor or ourselves.

Please bring a list of all your medications, allergies and any medical conditions you have to your appointment.

Please contact the endoscopy unit on **023 8120 6066** as soon as you receive your appointment letter if you are taking:

- | | |
|---------------|---------------|
| • warfarin | • rivaroxaban |
| • aspirin | • apixaban |
| • clopidogrel | • dabigatran |
| • edoxaban | |

It is important that you let both us and the doctor who referred you know if you are taking any blood-thinning medications. These medications can increase your risk of bleeding during the procedure so it's essential we discuss this with you in advance.

If you are unsure about any of your medications, please speak to your doctor.

Sedation

You will need to have sedation for this procedure. Sedation helps you stay relaxed and pain-free during the procedure. A nurse will give you a sedative injection (medicine to make you drowsy) via a cannula (a small plastic tube placed in your hand or arm).

After having sedation, you must have a responsible adult to take you home and stay with you overnight. If you do not have anyone who can stay with you, you may need to stay in hospital overnight after your procedure. If this is the case, please call the endoscopy unit on **023 8120 6066** as soon as possible so that we can make arrangements for this.

For 24 hours after being sedated you must not:

• drive	• drink alcohol
• operate machinery	• sign important documents

Pre-procedure check

Before your procedure, a nurse will carry out a series of pre-procedure checks with you. Please note that glasses and/or false teeth will need to be removed before your procedure. You may also need to change into a hospital gown.

The nurse will attach a loose clip (fingerprobe) to your finger so that we can monitor the oxygen levels in your blood and your heart rate during your procedure. The nurse will also give you some oxygen through a face mask or nose tubes.

Consent

The doctor will explain what they are going to do during your procedure, and you will be given the opportunity to ask any questions you may have. If you are happy to go ahead with the procedure, we will then ask you to sign a consent form.

What will happen during the procedure?

The EBUS is performed in the endoscopy unit by a specialist doctor.

We will spray a local anaesthetic (medicine that numbs a specific area of the body) into your throat. This can be uncomfortable but should not be painful. The anaesthetic doesn't taste particularly pleasant and you may have a sensation of numbness or 'blocking' in the back of your throat. You may also feel as if you can't swallow, but you can - the back of your throat is just temporarily numb.

We will then give you a sedative injection, which should make you feel comfortably relaxed throughout the procedure. Once the sedative has worked, we will pass a bronchoscope (a flexible telescope about the thickness of a little finger) with a built-in ultrasound probe into your lungs through your nose or mouth. We will spray local anaesthetic through the bronchoscope to numb first the vocal cords (voice box) and then the air passages in your lungs. While your voice box and breathing passages are being numbed, you may cough. This coughing usually settles down once the local anaesthetic takes effect, but can sometimes cause you some discomfort during the procedure. If this is the case, we will give you more anaesthetic or sedation as needed.

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We will then look inside your lungs for any problems or glands that lie outside the main airways in your chest. Once found, we will pass a fine needle through the bronchoscope into the area(s) and take samples of the cells (biopsy). We will send these samples to the laboratory. This part of the procedure will not be painful, but coughing is common. We will use sedation and anaesthetic to help minimise this.

How long will it take?

The procedure usually takes about 40 minutes.

How long will I be in hospital?

You are likely to be in hospital for a total of four hours (unless you are from the Channel Islands or we have told you otherwise).

Occasionally, people can take a longer time to recover after the procedure than expected. If this is the case, you may need to stay in hospital for observation.

What will happen after the procedure?

After the procedure, a nurse will look after you. They will check your breathing rate, pulse and blood pressure. You may also need to have a chest x-ray (a quick and painless procedure used to produce images of the inside of the body). If this is necessary, we will discuss this with you in more detail.

You may cough up small amounts of blood. Please let the nurse know if you cough up more than a tablespoon of blood, have chest pains or difficulty breathing.

When you have come around from the sedation sufficiently, the nurse will offer you a drink and a small bite to eat. If you tolerate these well, you will be allowed to go home.

You will likely feel sleepy for the rest of the day and into the next morning. You may also not remember much of the procedure due to having had a sedative injection. It is also common for people to:

- have a numb throat for an hour or two
- have a mild sore throat, hoarseness, congestion and/or a cough for a couple of days
- have temporary chest discomfort (for a day or so)
- feel congestion in their chest
- cough up a small amount of blood (this should become less within a day or so)
- have a mild fever (1 in 10 chance)

All of these symptoms are normal and should settle by themselves. To ease these symptoms, you can take paracetamol or ibuprofen as needed (always remember to read the instructions included in the box).

When to seek medical attention

If after a few days you are still coughing up blood, or if you cough up a large amount of blood (more than a tablespoon) either all at once or over a period of time, contact our endoscopy unit using the details at the end of this factsheet or phone NHS **111**.

If you develop discomfort in the chest or increased difficulty breathing, call NHS **111** immediately.

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Are there any risks or complications?

An EBUS is a safe procedure with little risk, and complications are relatively rare.

There is a small chance of infection and bleeding associated with the procedure, but every effort is made to prevent this from happening.

Air can also sometimes leak into the space surrounding your lung during the procedure, but this is not usually a problem. If this does happen, we can usually take the air out with a needle and syringe. However, in some instances, we may need to insert a drain (a little plastic tube) inside of you, which will need to stay there for a couple of hours to drain the air out.

Like all tests, EBUS does not offer a 100% chance of finding all the answers, although the success rate for this procedure is good. There is a chance that you may need other procedures as well as the EBUS to help in your diagnosis or treatment plans.

Is there an alternative test that I can have?

If an EBUS is not a suitable test for you or you do not wish to have the procedure, your doctor may suggest an operation called a mediastinoscopy. This involves a cut (surgical incision) in the neck, a general anaesthetic and an overnight stay in hospital. It also involves a longer recovery time than an EBUS. If this is the case for you, your doctor will discuss this with you in more detail.

When will I get the results?

We cannot give you any results on the day as it takes time for the samples to be reviewed. Your results will be sent to the doctor who requested you have the procedure and they will contact you when they have received them. If you have not heard anything within a week, please contact them for an appointment.

Contact us

If you have any further questions or concerns, please contact us.

Endoscopy unit

Telephone: **023 8120 6066** (every day, 8am to 6pm)

Respiratory secretaries

Telephone: **023 8120 6257** or **023 8120 3824** (Monday to Friday, 8am to 4pm)

For any urgent queries outside of these hours, call NHS **111**.

If you are a patient at one of our hospitals and need this document translated, or in another format such as easy read, large print, Braille or audio, please telephone **0800 484 0135** or email **patientsupporthub@uhs.nhs.uk**

For help preparing for your visit, arranging an interpreter or accessing the hospital, please visit **www.uhs.nhs.uk/additionalsupport**