

Endobronchial Ultrasound (EBUS)

Information for patients

This leaflet will help you and your family to understand more about EBUS. Please read it and ask any questions you may have. The specialist will ask you to confirm that you have read it and explain the procedure to you personally, before asking you to sign a consent form. This will either be done in the clinic or in the endoscopy department immediately before the test.

What is an EBUS?

EBUS (Endobronchial Ultrasound) is a test which allows sampling of lymph nodes within the chest. Samples of the lymph nodes can be taken from inside the lungs and sent to the laboratory to check for any abnormalities.

Why do I need an EBUS?

An EBUS is usually suggested if there are abnormal appearing lymph nodes identified on radiological scans. Sampling these lymph nodes may help your doctor determine the most appropriate route of treatment.

Is there an anaesthetic?

You do not need a general anaesthetic. A sedative injection is usually given before the procedure starts. Local anaesthetic is sprayed into your throat and the scope is inserted via your mouth and more is given directly into the bronchial tubes through the bronchoscope as the examination progresses. No pain is felt from the inside of the lungs even if tissue samples are taken and the local anaesthetic is to help reduce any coughing.

How is it carried out?

This test will be carried out at Harefield Hospital. You will be asked to lie on a couch, usually semi-upright, and the bronchoscopist (who is one of the doctors) will stand behind your head. After any sedative injection and the local anaesthetic have taken effect, the bronchoscope will be passed gently into your mouth, and back into your throat. The throat will be examined, more local anaesthetic applied and, after a pause to allow this to work, the bronchoscope will be passed down the windpipe and into the bronchial tubes. You will feel some discomfort as the bronchoscope is passed through your throat, which will pass, and after that the only uncomfortable feeling may be coughing. The bronchoscope is small in relation to the windpipe and bronchial tubes and there is plenty of room to breathe, but you will not be able to talk. The images from the bronchoscope are transmitted to a TV screen which the bronchoscopist watches.

Samples are taken by inserting a needle through the bronchial tube being examined and collecting the sample. A small ultrasound probe on the end of the tube helps us to locate the correct area to sample. The specimen collected contains cells from the lymph nodes which are then analysed in the laboratory for signs of infection or cancer.

The procedure takes about 45 minutes to an hour.

Are there any risks?

EBUS is very safe, but there are sometimes side effects and, rarely, complications which you need to be aware of in order to decide whether or not to agree to have this procedure.

Side effects

During the examination, coughing is common, though local anaesthetic is used to reduce this as much as possible. After the test, it is likely that you will have a sore throat for a day or two or some soreness of the nose. You might also have a hoarse voice for a short time. It is quite common to cough up small amounts of blood for a few hours after EBUS.

Complications

Major complications are uncommon, affecting 1–5 patients per 1000 bronchoscopies. These include significant bleeding or collapse of the lung following a biopsy, infection in the lung or an allergic reaction to local anaesthetic or sedative.

An irregular or rapid heart rhythm may occur in patients with underlying heart disease. Breathing difficulties can occur during EBUS in patients who have bad asthma or COPD (chronic obstructive pulmonary disease, such as emphysema) and the effect of sedation may reduce breathing further and cause low oxygen levels in the blood. Very rarely this is severe enough to require an anaesthetist to insert a breathing tube through the mouth into the windpipe and transfer to an intensive care unit.

Even more rarely, cardiac arrest and death can occur. Such devastating complications are extremely uncommon, reportedly once per 10,000 bronchoscopies, but the risk is greater if there is already serious lung or heart disease present and is taken into account in weighing up the pros and cons of having the test when discussing it with you.

Your safety

To reduce the risk of complications, your lung function (breathing capacity) and oxygen levels may be checked in the clinic. Blood tests will be done to check blood clotting to reduce the risk of unexpected haemorrhage. It is important that you have told the healthcare team of any breathing or heart problem you have, of any allergies you know of, what medicines you are taking or any special needs that may need to be accommodated.

If you are taking a drug called clopidogrel (Plavix®) to thin the blood then you will need to stop this 7 days before the test can be carried out.

If you are on any other blood thinners such as warfarin you will also be required to stop this 7 days before the procedure.

During the procedure your oxygen level will be continuously checked via a clip-probe on your finger, and you will be given extra oxygen through a mask or nasal tube. Your heart will be monitored and your blood pressure taken at regular intervals.

What happens afterwards?

After the EBUS you will be taken back to the recovery area a few yards away from the EBUS room. For 1-2 hours the nurses will check your pulse, blood pressure and breathing at intervals. During this time you will not be able to eat or drink due to the numbness in your throat.

You will normally be allowed home after 2 hours. You must not drive yourself and should not drive or operate machinery for 24 hours. You should have someone at home with you until the following day and should take it easy for 24 hours. You should not drink alcohol.

When will I know the results?

You should be given an outpatient appointment within 2-3 weeks of the EBUS to discuss the results with your Respiratory Consultant at your local hospital where you were originally seen.

What should I do on the day of the EBUS?

Eating and drinking – Before the test you should not eat or drink anything for at least 6 hours other than water and then should not drink anything for at least 2 hours.

Medication – You should take your usual medications on the morning of the test, with any necessary sips of water, except:

- If you are taking tablets for diabetes do not take them on the day of the test. If you are taking insulin the doctor will advise you beforehand, but usually any short-acting insulin is omitted in the 6 hours before the test, while long-acting insulin doses are reduced by 2/3 on the day.
- If you take warfarin tablets you will usually have been told not to take them for 7 days beforehand and they can be restarted that evening after the test (you may take aspirin as normal).

Travel – Please arrange for someone to bring you and take you home. The hospital can only provide transport if it is impossible for you to make any suitable arrangements.

Attending the EBUS - Attend at the time you have been given in clinic.

The nurses will show you to a bed and check your details. You will be asked to change into a hospital gown and your pulse, blood pressure and oxygen levels will be recorded. A small plastic cannula will be placed in one of your arm veins, to be used for any sedative injection later. The doctor who is going to carry out the EBUS will talk to you about the test, make

sure you understand what will happen and that you have read this leaflet, they will then ask you to sign a consent form.

Any questions related to your condition may not be answerable by the person carrying out the procedure if you have been referred from another hospital. If you have any concerns related to your condition then please contact your respiratory physician or clinical nurse specialist directly. Results of this procedure will be forwarded to your consultant as soon as they become available. Any queries relating to your results should be directed to your local consultant or clinical nurse specialist. We will not be able to give you these results directly.

Who can I contact if I have a question?

If you have any questions about the EBUS, please contact Dr Morjaria's Secretary on 01895 828692 or Harefield Hospital on 01895 823737.

Languages/ Alternative Formats

Please ask if you require this information in other languages, large print or audio format.
Please contact: 01895 279973

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Jeżeli chciałbyś uzyskać te informacje w innym języku, w dużej czcionce lub w formacie audio, poproś pracownika oddziału o kontakt z biurem informacji pacjenta (patient information) pod numerem telefonu: 01895 279973.

如果你需要這些資料的其他語言版本、大字体、或音頻格式，請致電01895 279 973 查詢。

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