Your doctor has advised that you need a bronchoscopy. It is likely that you are having the test done as a pre-planned procedure, and you should have plenty of time to discuss it with your consultant and perhaps even your own GP before you have it. This leaflet covers some common questions which people ask in relation to the procedure.

What is a bronchoscopy?
A bronchoscopy is a test which allows the doctor to look directly into the windpipe (trachea), the branches of the airways (bronchi) and into some areas of the lungs. The bronchoscope is a long flexible tube, about the width of a thin pencil, with a bright light at the end. During the bronchoscopy, a bronchoscope is passed through your nose or mouth, past your voice box (larynx) down your trachea and into the bronchi. As the doctor looks at the picture of your lungs projected on the monitor they can check whether or not any disease is present there.

What to do before the test?
You will be asked to come to the hospital on the day of your test at 9am. Please come into entrance 4 and once inside follow the signs to the Endoscopy/Day Procedures Unit and present at the reception desk. Please do not eat or drink for at least 4 hours before the test, you can have a light breakfast before 5.30am. Let the doctor or nurse know when you arrive if you have any allergies. They will also want to know about any previous bronchoscopy you have had, if you are asthmatic or diabetic, and any change in your condition since you were last seen in the clinic.

Please bring a list of all your medications, wear loose fitting, easily washable clothing and leave your valuables at home.

Do I take my medicines beforehand?
All your usual medications should be taken as normal with a little water.
If you are taking medicines which thin the blood these have to be stopped before the test, for example:
- Aspirin for 5 days before the biopsy
- Clopidogrel (or Plavix) for 7 days before
- Warfarin: we will discuss specifically for how long with you individually

What happens during the test?
The procedure takes place in an operating theatre and in the theatre room you will be made comfortable on a couch in a sitting or lying position. The doctor may give you an injection into a vein in your arm to make you feel sleepy and relaxed. You will actually be awake throughout, but may remember very little about it. A (rather bitter) local anaesthetic will be sprayed into your nose and onto the back of your throat; this numbs your throat and it may feel like you can't swallow. Sometimes the anaesthetic is given through a fine needle directly through the skin into the front of your neck. Local anaesthetic jelly is inserted into your nostrils; this makes the tube slide more comfortably through your nose.

As the bronchoscope is passed through your nose or mouth and down the back of the throat, more local anaesthetic will be sprayed onto the larynx (voice box). The procedure may make you cough but will not interfere with your breathing. As the local anaesthetic takes effect, your throat will relax, and the coughing should ease.

There is plenty of room to breathe around the bronchoscope. You will be given extra oxygen through a soft plastic tube placed inside your other nostril. A plastic ‘peg’ will be placed on your finger to monitor your heart rate and oxygen levels. During the test different procedures may be performed to obtain small amounts of lung tissue or washings for further examination in the laboratory:-
- A biopsy is the painless removal of a small piece of lung tissue using tiny forceps threaded through the bronchoscope.
- A ‘wash’ or bronchoalveolar lavage (BAL) involves passing a small amount of salty water through the bronchoscope into a certain part of the lung and sucking it back out again.
- A transbronchial needle aspiration involves passing a needle through the wall of an airway and taking a sample from tissues outside the lung, usually from a lymph gland.

The procedure is usually painless.

**How long does it take?**

It usually takes about 30 minutes.

**What happens after the test?**

If you are still sleepy from the sedation you will be left to rest in the day surgery ward where a nurse is always present. Occasionally patients need to be kept in overnight for observation. As your throat will have been numbed it is not safe to eat or drink immediately afterwards as you may choke. Your swallowing should return to normal in about 2-3 hours. The nurses monitoring you afterwards will let you know when it is safe.

**What are the serious or common risks and side effects?**

Having a bronchoscopy is a relatively safe procedure. The chance of having a complication is small. The common minor side effects include:
- sore throat & hoarse voice; this is due to the bronchoscope rubbing the lining of your throat and should disappear within 48 hours. Drinking plenty of fluids or sucking sweets may relieve the symptoms.
- nose bleed or soreness; again this is due to the passage of the bronchoscope.
- slightly blood stained phlegm; this may occur if biopsies have been taken. It should clear up within 24 hours. If it continues please contact your hospital doctor or come straight to the A&E Dept if you are coughing up large amounts of blood.
- fever; this can occur and last for 24 - 48 hours. Usually it will settle with paracetamol but if it continues for more than 2 days please contact your hospital doctor as you may have developed a chest infection.
- a drop in your oxygen levels can occur during the procedure, this does not usually have long lasting effects and we are constantly monitoring levels, giving additional oxygen as necessary during and after the procedure.

Very rarely, major bleeding can occur from the biopsied area, which may require an overnight stay in hospital for observation, and rarely a blood transfusion.

If you have had a transbronchial biopsy, you will need a chest X-ray after the procedure. Occasionally a complication known as a pneumothorax can occur due to this particular type of biopsy. This occurs because there has been a small leakage of air from the lung (also called 'lung collapse'). In a small proportion of patients, if the air leak is large enough, a drain/tube may need to be inserted into the chest from the side of the chest wall to remove the unwanted air. This will require that you remain in hospital at least overnight and maybe longer depending on how quickly the air leak resolves.

Death from bronchoscopy has been described as occurring in 1 in 10,000 cases. However almost always these small numbers of patients who have died have been very ill in hospital before the procedure and are not having the procedure as an outpatient.

**When can I go home?**

Usually around 12-1 pm; when you are sufficiently awake, and can drink safely. You must arrange for a friend or relative to come with you to the department and to take you home, as you will not be able to drive or take public transport on your own when you have had a sedative. There must also be someone to stay with you at home overnight. Once home, you should rest quietly for the remainder of the day.

**When can I resume normal activities including work?**

If you are given a sedative you might continue to feel sleepy for the rest of the day. It is essential that for the next 24 hours you do not do any of the following:
- drive, ride a bicycle, operate machinery, perform tasks requiring skill or judgement (such as signing official documents), return to work, or drink alcohol.

**Who will be doing the test?**

This procedure will be performed by a doctor fully trained in this procedure or a doctor in training under the supervision of a consultant. The doctor who organised the test for you may not necessarily be the one performing the procedure.
What alternative procedures are available?
Usually a bronchoscopy is the safest and quickest way to assess the bronchi and take biopsies. Alternatives to this procedure would include an operation under general anaesthetic to biopsy the lung, which is sometimes necessary if the bronchoscopy fails to provide an answer. Another alternative is for a needle to be inserted through the chest wall under local anaesthetic, but this is only possible if the area to be biopsied lies close to the chest wall.

When do I know the result?
After the bronchoscopy the doctor may be able to tell you what they have seen, but the full results will not be available until your follow up appointment, (or during your hospital stay if you are an inpatient), as biopsies and washes can take 2-3 days to process. It is a good idea to have someone with you when you talk to the doctor after the procedure because the sedation can make you forget what has been discussed. Your memory will return to normal when the sedation wears off, usually within 24 hours.

Who can I contact if I have further questions before the test?
If you have any further queries about the bronchoscopy or find that you cannot keep the appointment, you should contact the chest office on 01296-315686 or 01296-315662. If there is no answer you can leave a message on the answer-phone.

Reducing Infections
Infection control is important to the well being of our patients and, for that reason, we have infection control procedures in place.

Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you and anyone visiting you use the hand rub (special gel) available at the main entrance of the hospital and at the entrance to every ward before coming into and after leaving the ward or hospital. In some situations hands may need to be washed at a sink using soap and water rather than using the hand rub. Staff will let you know if this is the case.

For infection control purposes and to keep safe and well visitors are requested not to:

- Visit you if they are unwell
- Sit on your bed or use the patient toilets
- Touch your wounds, or any medical devices, drips or catheters.

Can you help us?
SCANNAPPEAL purchased much of the specialist equipment in the Trust’s hospitals and is now raising funds for equipment for the early detection of lung cancer, via the CANCER FIGHTING FUND to help patients in this unit. If you would like to support their work, please ring 01494 727752 or email: info.scannappeal@buckshosp.nhs.uk or visit the website: www.scannappeal.org.uk

CANCER FIGHTING FUND – PROVIDING NEW TECHNOLOGY FOR LOCAL PATIENTS