Medical thoracoscopy

Introduction

Your doctor has advised you to have a thoracoscopy for one of two reasons:

1. To learn more about your illness and to help find out the cause of your chest symptoms.
2. To remove fluid which may have collected inside your chest, between the lung and the chest wall (pleural effusion), and try to prevent this from happening again.

What is a thoracoscopy?

A thoracoscopy is a way of examining the chest wall using a small ‘telescope’, called a thoroscope, through a little hole (about one to two cm) in the chest. This allows the doctor to look inside your chest and around the outside of your lungs to find out why fluid has collected in your chest cavity.

The procedure usually involves taking samples, biopsies, from the pleura (the membrane lining the chest wall) through the thoroscope. Some fluid is also generally sent for analysis.

Sometimes sterile talc is sprayed inside the chest (talc poudrage) to try and stop the collection of fluid in the future.

Before the test

- You must not eat or drink for at least four hours before the test to prevent any sickness during or after the procedure.
- You should still take your usual medicines with a small amount of water (diabetics will be advised by the medical staff on the ward).
- You will be given a gown to wear and you should remove your watch and glasses if you wear them. Your rings will be taped.
- You may keep your dentures and hearing aids in.
- You will not need a general anaesthetic but you will be given some medicine to make you feel relaxed or even sleepy before the test.

The test itself

The thoracoscopy takes between 40 to 60 minutes. It takes place in the endoscopy department.

You will be asked to lie on your side (your unaffected side). A probe will be placed on your finger to monitor your oxygen levels during the procedure and you will be given oxygen through your nose using nasal cannulae.
The doctor will have placed a small tube (venflon) in your arm in order to give you medication before and during the procedure to help you feel relaxed. You will be given a sedative and some more painkillers - the sedative is not a general anaesthetic but it will make you feel sleepy and you may not remember the test afterwards.

The doctor may use an ultrasound machine to help find the best place to put the thorascope in. Then the area of your chest wall where the tube goes in will be numbed with an injection of local anaesthetic. This may sting a little at first but then it numbs the area so that you do not feel anything during the examination. One, or sometimes two, small cuts will be made in the side of your chest and the thorascope is passed through allowing us to see inside the chest. Some specimens are taken and any fluid inside the chest is drained away and if necessary the sterile talc is sprayed in.

At the end of the procedure a plastic tube (a chest drain) is inserted through the cut to allow any fluid or air left inside to come out. The chest drain is attached to a bottle with water in it, which stands on the floor – sometimes this is attached to suction for a while. The chest drain is stitched to the skin so that it does not fall out and is covered with gauze and a waterproof dressing.

After the test
You will be taken back to your bed on the ward and made as comfortable as possible. You may have a drink and something to eat after about one hour if you are not too sleepy and feel able to manage. Your nurse will regularly record your temperature, pulse, blood pressure, and breathing, check your oxygen levels and monitor your chest drain output. Let her know if you feel any increased shortness of breath.

Pain
You may experience some pain or discomfort in your chest, but if this happens you must inform the nursing staff or doctor so that they can give you some painkillers.

Chest drains
You will have one (or two) chest drains in after the thoracoscopy. This is to help drain any blood or air that remains in your chest after the procedure. You may see some bubbles of air and a little blood draining into your chest drain bottle, this is normal. Sometimes, especially if samples have been taken, you may bleed slightly more.

A few simple rules to look after your chest drain:
- keep the drainage bottle on the floor
- do not swing the bottle by the tube
- take care not to knock the bottle over
- if you feel your tube may have moved or be coming out tell your nurse

The drain(s) will usually be removed within 48 to 72 hours. A chest x-ray will help decide when the chest drain can be removed.

Once your chest drain(s) has been removed you may go home. Removal is a simple procedure that can be mildly painful but you will be given painkillers to control this. You
will have a small stitch where your drain has been and this will need removing within five to seven days by your GP or nurse.

**How long will I be in hospital?**
This will vary. Most people should be able to go home the same day but you may need to stay for a couple of days.

**What are the risks of thoracoscopy?**
Thoracoscopy is generally a very safe procedure. Any medical procedure carries a very small risk to life, but for thoracoscopy this is very low indeed (less than one in 1000).

All patients experience some pain, but this is rarely severe. The local anaesthetic stings briefly and the chest tube at the end of the procedure can be mildly painful. You will be given painkillers to control this.

In some patients if talc is used (talc poudrage) to help stop the abnormal collections of fluid or air from re-occurring it can cause some pain over twenty four hours after the procedure but this will also be treated with painkillers.

After discharge the chest wall will often remain sore for some time but painkillers will help with this. For a few patients, occasional sharp ‘scar pains’ can affect the chest for some months afterwards. These are usually very brief and not severe and do not suggest that anything has gone wrong.

**Infection**
About one patient in every 100 who has a thoracoscopy suffers an infection at the site of the chest tube. If this occurs it can usually be treated with antibiotics, but it may require a longer stay in hospital. The small risk of introducing an infection into the chest itself is about one in 500. Very rarely such infections can be serious and require an operation for their resolution.

**Bleeding**
About one or two patients in 1000 may develop significant bleeding. This is usually effectively treated at the time of the procedure, but might (very, very rarely) require an operation for its control.

**Are there any alternatives?**
There are alternative ways of getting biopsies from the chest using a biopsy needle. This alternative method is about half as good at identifying the cause of the fluid in the chest and is probably about as painful as the thoracoscopy.

The biopsy method has a further disadvantage in that it does not allow us to use sterile talc to control fluid or air re-occurrence. For these reasons we recommend the thoracoscopy approach. However, we would be pleased to discuss the alternatives with you if you wish.
How to contact us/further information

If you would like any further information about this procedure, or if any problems arise, you may telephone:

- Pleural service team – 01223 349189

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Help with this leaflet:

If you would like this information in another language, large print or audio format, please ask the department to contact Patient Information: 01223 216032 or patient.information@addenbrookes.nhs.uk

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