

Medical Thoracoscopy procedures



Aintree University Hospital
NHS Foundation Trust

Endoscopy Unit
Elective Care Centre
Lower Lane
Liverpool L9 7AL
Tel:0151-529-0604

This booklet will answer many of your questions about your Medical Thoracoscopy, please read this booklet carefully. However, if you would like to speak to somebody about the procedure please contact the Endoscopy Unit on the number shown above.

Your name: _____

NHS No: _____

Your appointment is on _____ **at** _____

Checklist of items to bring with you:

- List of current medication
- Details and contact number for the person who will be collecting you and escorting you home.

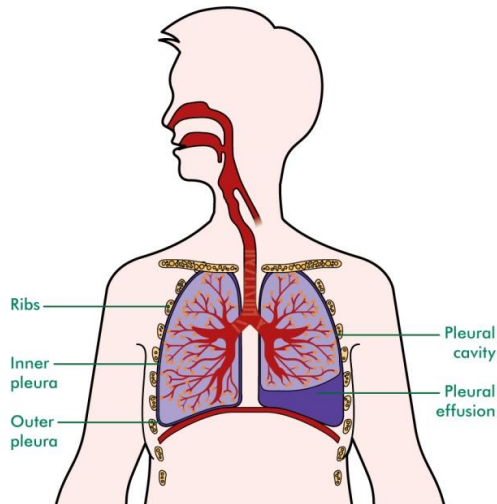
General points to remember:

- It is our aim for you to be seen and investigated as soon as possible after your arrival. However, the Endoscopy Unit is very busy and your investigation may be delayed. If emergencies occur, these patients will be given priority.
- The hospital cannot accept any responsibility for the loss or damage to personal property during your time on these premises.

If you are unable to keep your appointment please notify the Endoscopy Unit as soon as possible on the following number: **0151 529 0604**

What is a Medical Thoracoscopy and why am I having it done?

- You have been advised by your hospital doctor to have a procedure known as a Medical Thoracoscopy procedure.
- The lung is surrounded by a thin lining known as the "pleura." Certain conditions may cause fluid to accumulate between the lining of the lung (see picture below).
- The build-up of fluid is known as a "pleural effusion" and can cause breathlessness and discomfort if there is a large amount of fluid present.



- Medical Thoracoscopy refers to a procedure where the lining of the lung (pleura) is inspected and sampled by means of a tube (known as a thoracoscope) inserted through a space between the ribs.
- The purpose of the Medical Thoracoscopy is to both drain the fluid in order to improve breathing and to better understand the reasons behind why the fluid has built up in the first place.

In order to do this we need to inspect the lining of the lung where the fluid has built up and to take a sample from this lining.

- The Medical Thoracoscopy will be performed by or under the supervision of a lung specialist (Consultant).

Coming in for your Medical Thoracoscopy

In certain cases, you will be admitted to a Respiratory Ward bed the day before your procedure and will be taken to the Endoscopy Unit on the day of the procedure before going back to the same Respiratory ward bed afterwards.

In other cases, you will be required to come to the Endoscopy Unit on the day of the procedure and be admitted to a Respiratory Ward bed following the procedure.

Preparing for your Medical Thoracoscopy

Eating and drinking

- Do not eat or drink for 4 hours before the appointment.
- If your appointment is in the afternoon you may have a light breakfast (small bowl of cereal or slice of toast) before 9am and small amounts of water until 2 hours before your appointment.

Medications

- You can take your morning medicines with a few sips of water.
- If you are a patient with diabetes, make sure you tell the doctor who recommended the thoracoscopy before the day of your test.

- They will ask you which treatment you take for your diabetes and they will tell you whether to take your diabetes medication on the day of the thoracoscopy.
- Before undergoing the Medical Thoracoscopy, please inform your clinic doctor at the outset and the Endoscopy Unit nurse when you attend for the procedure if you are taking **warfarin, clopidogrel** or any other **blood-thinning drugs**.

What to bring with you

- Medical Thoracoscopy is usually not a “day case” procedure. You will be admitted to a Respiratory Ward following the procedure.

The duration of the admission may vary but will at least be 24 to 48 hours. Bring slippers, dressing gown, book or magazine and all your tablets and medicines.

Please remember that your appointment time is not the time you will have the test if you are coming in from home - there will be a wait between your admission and having the Thoracoscopy done.

How is a Medical Thoracoscopy procedure performed?

- Once you have been escorted into the Endoscopy Theatre, you will be greeted by the staff performing and assisting with the procedure
- The lung specialist will give you sedative medications through a cannula in the back of your hand which will make you feel drowsy and relaxed.

This is to minimize any pain and discomfort during the procedure. As a result of being given such medications, you may remember very little about the procedure.

- For Medical Thoracoscopy, the procedure is usually performed with the patient lying flat on one side (depending on which side the fluid has built up).
- The most suitable area for inserting the thoracoscope is first identified sometimes with the assistance of an ultrasound scan performed at the bedside.

This is usually on the chest wall just over where the fluid has built up. After a suitable site has been identified, this area is made numb with local anaesthetic.

- The doctors make an incision at this point. The sedation and local anaesthetic given to you would have made this process much less painful.
- A small hollow plastic tube is inserted through this incision allows us to access the lung lining. We then remove as much fluid as possible that has built up.

The removal of the fluid will improve your breathing and allow us to get the best possible views of the lung lining.

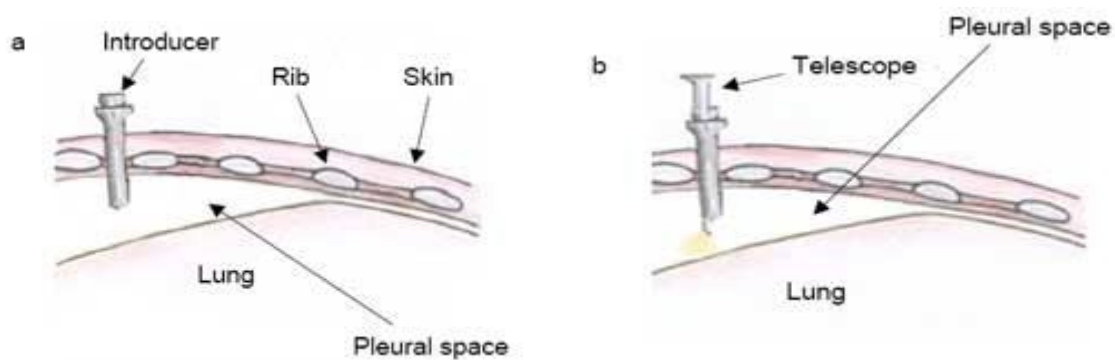


Figure 1

a An introducer is placed into the pleural space

b A telescope is then placed through the introducer

- A tube known as a thoracoscope is passed through the hollow plastic thoracoport and this is connected to a camera and television screen.

This allows the doctors to visualise the lining of the lung. Samples may be taken from the lining of the lung at this point and these are known as “biopsies”.

- After the biopsies have been taken, in some cases, the doctors spray a special form of talc powder onto the lining of the lung in order to seal the space between the lung lining and thus prevent any further build-up of fluid.
- At the end of the procedure, a small tube is inserted at the same incision site in order to drain any remaining air and fluid and this tube is connected to an underwater seal and bottle.

This tube is known as a “Chest drain” and this bottle and tubing will be connected to your side for a period following the procedure.

- Once the procedure is over, you will be taken to the Recovery area and then on to one of the Respiratory Wards thereafter.

You will be admitted to one of the Respiratory Wards for a period of observation and we will ask you to have a Chest X ray the following day.

- The admission period may range from 24 hours to several days and will depend on a number of factors such as whether the lung has fully expanded.

Your team looking after you on the ward will update you regarding how long this period will be and the results of any X-rays or biopsies which have been taken.

The whole Medical Thoracoscopy procedure itself takes about 45 minutes to perform. As you will have been given some sedation for the procedure, you may remember very little about it.

How will I be monitored during the Medical Thoracoscopy procedure?

- You will be given oxygen during the procedure via small prongs in the nostrils and we will monitor your breathing and heart rate so changes will be noted and dealt with accordingly.

For this reason, a small clip will be attached to your finger in order to measure your oxygen levels and heart rate during the procedure. Your blood pressure may also be recorded.

What complications can happen during Medical Thoracoscopy?

The health care team will try to make your procedure as safe as possible however, complications can happen. Some of these can be serious and can even cause death.

Possible complications of a Medical Thoracoscopy are listed below. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.

- **Shallow breathing and low oxygen levels:** The Medical Thoracoscopy procedure usually involves giving patients sedative medications into a vein before passing the bronchoscope through the mouth.

The amount of sedation given will depend on your lung capacity, any history of heart or kidney problems and your overall general health.

Sometimes breathing can be more difficult due to the effect of sedation which settles quickly after the procedure. Your oxygen levels will be monitored and you will be offered oxygen if needed.

The chances of this happening are small (1 in 20 or less procedures)

- **Bleeding:** Bleeding may occur from where the doctor has taken a biopsy of the lung lining. It is usually minor and stops on its own.

Before undergoing the Medical Thoracoscopy procedure, please inform your clinic doctor at the outset and the bronchoscopy nurse if you are taking **warfarin, clopidogrel** or any other blood-thinning drugs.

The chances of this happening are very small (less than 1 in 100 procedures)

- **High Temperature:** This may develop in the 48 hours after the Thoracoscopy. This can happen due to your body responding to the telescope and drugs used during the thoracoscopy particularly if talc powder spray has been used.

The chances of this happening are small (1 in 10 procedures or less)

- **Infection:** This may develop around the incision site for the procedure or where the drain has been inserted.

In most cases this can be dealt with antibiotics but occasionally this can be more serious resulting in a collection of infected fluid or pus and may need further drainage or rarely an operation.

The chances of this happening are small (1 in 100 or less procedures)

- **Pain:** You may experience some discomfort around the site where the incision has been made and where the chest drain has been inserted.

This is expected and suitable painkillers will be prescribed for you for this purpose.

- **Air leak (pneumothorax) and a “trapped lung”:** On occasion, it may not be possible to re-expand the lung fully once the fluid has been removed and the lung becomes fixed and trapped in one position (known as a “trapped lung”).

In the majority of such cases, this is not due to the procedure itself but more to the underlying cause which has resulted in the build up of fluid.

The management in the event of this scenario is something that your doctors will discuss with you in detail following the procedure.

The chances of this occurring depend on what has caused the build up of fluid around the lungs to occur in the first place.

- **Allergic reaction:** You may be allergic to the equipment, materials or sedative used for a Medical Thoracoscopy.

Please inform your doctor if you have any allergies or if you have reacted to any drugs or tests in the past.

You should discuss these possible complications with your doctor if there is anything you don't understand.

What will happen after the procedure?

- After the Medical Thoracoscopy, you will be transferred to the recovery area where you will be allowed to rest for as long as is necessary before being transferred to a Respiratory Ward bed.
- Your blood pressure and heart rate will be recorded and, if you have diabetes, your blood glucose will be monitored.

If you have underlying breathing difficulties or if your oxygen levels were low during the procedure, we will continue to monitor your breathing.

- The day after your procedure, the Ward team will request a Chest X ray to assess whether the lung has expanded back fully and this may need to be repeated where expansion is not complete.
- As you have had sedation, you should **not:** drive a car or ride a bicycle, drink alcohol, operate machinery, or do things requiring skill or judgement, make important decisions or sign documents for 24 hours after your procedure.
- **In some cases, the biopsy results from the lining of the lung may not be ready by the time you are discharged from hospital.**

However, a clinic appointment to see the doctor will be made for you within 2 weeks and the results will be ready by this time.

Further information

Car Parking

The Trust's five-floor, multi-storey car park has space for 1,250 vehicles including 50 disabled parking spaces.

This car park is located at the rear of the hospital, in front of the Elective Care Centre and is connected by a link bridge.

This is the ideal location to access the Endoscopy Unit which is situated on the 3rd Floor of the Elective Care Centre.

There is a charge for car parking at Aintree Hospital. For further information on the charges please see the Aintree Hospital website:

http://www.aintreehospitals.nhs.uk/patient_information/parking_information.asp

or contact the Customer Services Department on telephone number 0151 529 3287.

Contact details

If you have any questions about your Medical Thoracoscopy and would like to speak to somebody about the procedure then please call your Consultant's secretary.



If you require a special edition of this leaflet

This leaflet is available in large print, Braille, on audio tape or disk and in other languages on request. Please contact:

Tel No: 0151 529 2906

Email: interpretationandtranslation@aintree.nhs.uk