Indwelling Pleural Catheter

Exceptional healthcare, personally delivered
What is an ambulatory indwelling pleural catheter?

An ambulatory indwelling pleural catheter is a specially designed small tube to drain fluid from around your lungs easily and painlessly whenever it is needed. It avoids the need for repeated painful injections and chest tubes every time the drainage of fluid is needed. The drainage can be performed either by you on your own or with the help of a nurse, whichever suits you. The pleural catheter is a soft flexible tube that is smaller than a pencil, which remains inside the chest and passes out through the skin. There is a valve on the outer end of the tube to prevent fluid leaking out of the tube.

Why do you need an indwelling pleural catheter?

The pleural space consists of two thin membranes – one lining the lung and the other lining the chest wall. Between these layers, there is a very small space which is usually almost dry. In your case fluid has collected in this space so that the lung cannot function properly making you short of breath.

What can be done to help me when this happens?

Draining away the fluid collection helps relieve breathlessness for a short period, but the fluid then often re-collects making you short of breath again. Whilst it is possible to have repeated drainage of fluid in this way, it can be uncomfortable and means many inconvenient trips to hospital. The indwelling catheter is a way of allowing fluid to be repeatedly drained without you having to come to the hospital and without you having to have painful fluid drainage procedures.
How is the indwelling catheter put in my chest?

The tube will usually be put into your chest as a day case. After you have come to the hospital you will be met by a nurse. A small cannula will be put into your arm in order to give you sedation if required. You will be asked to either sit or lie in a comfortable position by your doctor. Some sedative medication will be given through the needle in your hand to make you sleepy. This is not an anaesthetic and it is common for you to remember some of the procedure despite this sedative injection.

Once you are resting comfortably, the skin will be cleaned with an alcohol containing cleaner to kill any bacteria. This fluid often feels cold. An anaesthetic is then injected into the skin, to numb the place where the indwelling catheter will go. This can feel mildly painful, but this pain passes off quickly.

Your doctor will then make two small cuts in the numb area of skin and gently open a path for the indwelling catheter. This should not be painful, although you may feel some pressure or tugging. One cut is for the catheter to pass through the skin, and the second is for it to be passed into the chest. The indwelling catheter is then gently eased into the chest.

Will it be painful?

Local anaesthetic is injected into the skin before the drain is put in, so that you do not feel the drain going in and painkilling medications are given to control any pain. At the end of the procedure the chest may feel “bruised” or “sore” for about a week. We will provide you with pain killing tablets to relieve this discomfort.
How long do I have to stay in hospital?

Provided there have been no problems, the catheter insertion is done as a day case and after a short stay on the ward you will be free to go home. Someone will need to drive you home as you will have received sedative medication and will be unable to drive yourself as the effect of the drugs can last up to 24 hours.

How does the drain stay in position?

Indwelling pleural catheters are designed to be a permanent solution to the problem of pleural fluid (though they can be removed if they become unnecessary). There is a soft cuff around the tube which is positioned under the skin to which the skin heals, so the drain is made secure.

Two stitches will be put in when your tube is inserted. The nurse will remove these 10 days after the insertion.

Who will drain the fluid from my tube once it is in place?

Drainage of the fluid is a straightforward procedure. There are a number of ways that this can be undertaken.

Our nurses will be able to teach you, a relative or a friend, how to drain the fluid so that it can be done in the comfort of your own home. You will be given illustrated instructions on how to this which clearly take you through the procedure step by step.

If you or your relative/friend are not able to drain the fluid then we will arrange for a member of our team or a District Nurse to do this for you.

We will make these arrangements so you will not need to organise any of this for yourself.
How often can I drain fluid and how often do I need to do this?

When your catheter is inserted the doctor will remove most of the fluid from your chest cavity at the same time. The rate the fluid re-accumulates varies between people and some patients need daily drainage whilst others require only weekly drainage or less. You can drain fluid as often or as infrequently as is needed.

How will drainage bottles be supplied to me?

As soon as you have been given a date for your pleural catheter placement we will contact your local district nurses who will order catheter drainage bottles to be delivered directly to your home address. These will usually arrive within 2-3 days of your clinic appointment and in plenty of time for your catheter placement appointment. It is sensible to take 2-4 bottles with you if you are ever admitted to hospital in the future to ensure that there are no delays in your pleural drainages while an inpatient.

Are there any risks with indwelling catheter insertion?

In most cases, the insertion of an indwelling pleural catheter and its use in treatment is a routine and safe procedure. However, like all medical procedures, they can cause some problems. All of these can be treated by your doctors and nurses:

- Most people get some pain from their indwelling catheter in the first week. We will provide you with pain killing medication to control this.
Sometimes indwelling catheters can become infected but this is uncommon (affecting about one in 50 patients). Your doctor will thoroughly clean the area before putting in a chest drain to try and prevent this and we will teach you how to keep your catheter clean. Tell your doctor if you feel feverish or notice any increasing pain or redness around the chest drain.

Are there any risks associated with long term indwelling catheter use?

Generally indwelling pleural catheters are very well tolerated in the long term.

- The main risk is infection entering the chest down the tube. This risk is minimized by good catheter care and hygiene. We will teach you how to look after your catheter.
- Sometimes cancer tissue can affect the area around the indwelling catheter. Please let your doctors know if you develop a lump, or any pain, around your catheter in the weeks after it is inserted. If this problem does develop, your doctor will advise you on appropriate treatment.

Can I wash and shower normally?

Initially after insertion there will be a dressing placed on the catheter and we advised you to keep this dry until the stitch is removed seven days later. Providing the site is then clean and dry, you will be able to bath and shower normally. After a month it is even possible to go swimming.

When is the indwelling catheter taken out?

Indwelling pleural catheters are designed to remain in position permanently. However, sometimes the fluid drainage from the chest dries up and the catheter is no longer needed. In this situation the catheter can be removed as a day case procedure.
What should I do if something happens to the tube?

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What should I do if something happens to the tube?

On discharge from hospital you will be given an information sheet detailing after care following tube insertion.

Your feedback is encouraged.

We are keen to make indwelling pleural catheter care as straightforward and as comfortable as we possibly can. Please feel free to make any suggestions for improvements to your doctors or nurses.

References and further information


NHS Constitution. Information on your rights and responsibilities. Available at www.nhs.uk/aboutnhs/constitution
If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

See your appointment letter for the number to phone with any queries you may have

www.nbt.nhs.uk/respiratory