

Indwelling pleural catheter system explained

Respiratory Medicine Patient Information Leaflet

Introduction

This leaflet is about the procedure to fit an indwelling pleural catheter (IPC) system. It tells you what the system is, how it is inserted, its benefits and possible problems that may occur.

We hope it will answer some of the questions that you or those who care for you may have at this time. It is not meant to replace discussion between you and your doctor, but as a guide to be used along with what is discussed.

What is an indwelling pleural catheter?

It is a soft, flexible tube (catheter) that is inserted into your chest to drain fluid which builds up in the pleural space. The tube is thinner than a pencil. It remains inside the chest and passes out through the skin. There is a clamp on the outer end of the system to prevent fluid leaking out.

The pleural space is situated between the lung and the chest wall. The pleural space consists of two thin layers, one lining the outside of lung and the other lining the inside of the ribs.

These layers are normally separated by a very small amount of fluid which acts as a lubricant and allows them to slide effortlessly against each other during breathing.

In your case, a larger amount of fluid has collected in this space so the lung cannot work properly, making you short of breath.

Draining away the fluid can help relieve breathlessness for a short period, but the fluid often builds up again. While it is possible to have repeated drainage with a chest drain insertion, this might require repeated hospital visits. The IPC is a way of allowing fluid to be drained repeatedly, without the painful drainage procedures and without having to come to hospital. In about 50 per cent of cases, this procedure can seal the space and stop the fluid from returning.

What are the benefits?

It allows you to drain fluid from around your lungs easily and painlessly whenever it is needed, at home. You can do this at times that suit you, so you can manage fluid build-up before it becomes too uncomfortable.

It avoids the need for repeated injections and chest tubes every time the fluid needs to be drained. The drainage can be performed either by you on your own or with the help of a nurse, whichever is easier for you.

Why do I need an indwelling pleural drainage system?

The reason your doctor has recommended this catheter is due to build-up of fluid around your lungs, which can cause difficulties with breathing. This is known medically as pleural effusion.

What does the drainage system consist of?

- Drainage catheter
- Drainage collection bottles
- Protective dressing

How is the catheter inserted?

We will give you a date and time to come to hospital for the procedure. It is usually carried out as a day case in the dedicated procedure room on ward C5.

For the procedure, the doctor will

- Ask you to lie down on your side, in a comfortable position.
- Use an ultrasound scan to locate a suitable position for the catheter.
- Clean the area to make sure it is sterile.
- Give you an injection of local anaesthetic to numb the area where the catheter will be inserted.
- Insert the catheter into your chest between the two layers (as mentioned above).
- Secure the catheter with two stitches.
- Put a protective dressing on to secure the outer part of the catheter to your body.

If there are no complications, you will be able to return home shortly after the procedure.

What are the risks of the procedure?

All procedures have some risks. Inserting the drainage catheter is a relatively simple and safe procedure, and the doctor will explain things to you carefully before you have it.

- Sometimes, indwelling catheters can become infected, but this is uncommon (affecting about one in 50 patients). Your doctor will clean the area thoroughly before the procedure to try and prevent this. 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.
- Very rarely, during the insertion, the chest drain may accidentally damage a blood vessel and cause serious bleeding. This probably only affects about one in 500 patients.

We will monitor you closely during the procedure to prevent these risks from occurring wherever possible.

Will it be painful?

We will inject local anaesthetic into the skin beforehand so that you do not feel the drain going in. At the end of the procedure, your chest may feel bruised or sore for about a week, but this can be controlled with painkilling tablets.

How does the drain stay in position?

IPCs are designed to be a permanent solution to the problem of fluid in the pleural space (though they can be removed if they are no longer needed). There is a soft cuff around the tube, which is positioned under the skin. The skin heals around this cuff over a two-week period, making the drain much more secure.

How does the drainage system work?

When you need to drain fluid, you connect the end of the drainage catheter to the drainage line on a collection bottle. Then you release the clamp.

When you have drained enough fluid out (usually about 600ml), close the clamp and disconnect the drainage line and bottle. It takes about five to 15 minutes to drain the fluid.

We will give you two packs, each containing a drainage bottle and dressing. You can get more from the district nurse, who we will make aware of your procedure.

What are the alternatives?

You do not have to have this system fitted. If you prefer, you can continue to visit hospital to have the fluid removed from your lungs.

Aftercare advice

We will give you an information pack, showing how to attach the drainage bottle, how to drain the fluid and general care of your catheter.

Can I wash and shower normally?

Make sure that the catheter tube is completely covered by the self-adhesive dressing and that it is securely attached to your skin.

Do not allow the catheter to soak underwater in a tub, bath or pool.

What about the stitches?

We will remove the stitches 14 days after the procedure.

Can I drain the fluid myself?

Usually, a district nurse will visit you at home to drain the fluid. However, if you or your carer wish to learn how to drain the fluid, we will be happy to teach you.

How long will I have the catheter in for?

Indwelling catheters are designed to remain in position permanently. Often, the amount of fluid produced reduces or dries up after a period of weeks or months. In that case, the catheter is no longer needed and we can take out the catheter using a small amount of local anaesthetic.

For this procedure, you will need to come into the procedure room on ward C5. It should take about 20 to 30 minutes. In very poorly patients, who are too frail to come to hospital, there is no harm if the catheter is left in.

Can anyone remove the catheter?

Healthcare professionals who are unfamiliar with the catheter must NOT attempt to pull it out. If they do, it will snap.

How often does the fluid need to be drained?

When your catheter is inserted, the doctor will remove most of the fluid from your chest cavity at the same time. How quickly the fluid drains varies between people. Some people need daily drainage, while others require weekly drainage or less. You can drain fluid as often or as frequently as is needed, but you will be guided by your nurse or doctor.

Are there any risks associated with long-term IPC use?

Generally, indwelling catheters are very well tolerated, but again, there are some risks.

- The main risk is infection entering the chest through the tube. The risk is minimised by good catheter care and hygiene. We will teach you how to look after your catheter. Check the area regularly for signs of infection (redness, swelling, oozing, pain or fever). If any of these do occur, you should inform your district nurse, GP or ward C5 as soon as possible so that you can be assessed and, if necessary, receive treatment with antibiotics.
- Sometimes, cancer tissue can affect the area around the indwelling catheter. Please let your doctor know if you develop a lump or any pain around your catheter in the weeks after it is inserted.

If you have any questions, or if there is anything you do not understand about this leaflet, please contact:

Ward C5 on 01384 456111 ext. 2191

Russells Hall Hospital switchboard number: 01384 456111

This leaflet can be downloaded or printed from:

<http://dgft.nhs.uk/services-and-wards/respiratory-medicine/>

If you have any feedback on this patient information leaflet, please email dgft.patient.information@nhs.net

This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.

للحصول على هذه النشرة بحجم أكبر، وعلى شكل إصدار صوتي و بلغات أخرى، الرجاء الاتصال بالرقم 08000730510.

此宣传单可提供大字版本、音频版本和其它语言版本，请拨打电话：0800 073 0510。

Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

ਇਹ ਪਰਚਾ ਵੱਡੇ ਅੱਖਰਾਂ, ਬੋਲ ਕੇ ਰੀਕਾਰਡ ਕੀਤਾ ਹੋਇਆ ਅਤੇ ਦੂਸਰੀਆਂ ਭਾਸ਼ਾਵਾਂ ਵਿਚ ਵੀ ਪ੍ਰਾਪਤ ਹੋ ਸਕਦਾ ਹੈ, 0800 073 0510 ਤੇ ਫੋਨ ਕਰੋ ਜੀ।

Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru va rugăm sunați la 0800 073 0510.

یہ کتابچہ آپ کو بڑے حروف کی لکھائی، سمعی صورت اور دیگر زبانوں میں مہیا کیا جا سکتا ہے۔ برائے مہربانی فون نمبر 08000730510 پر رابطہ کریں۔