

Respiratory medicine

Preparing for an indwelling pleural catheter (IPC)

Information for patients, relatives and carers

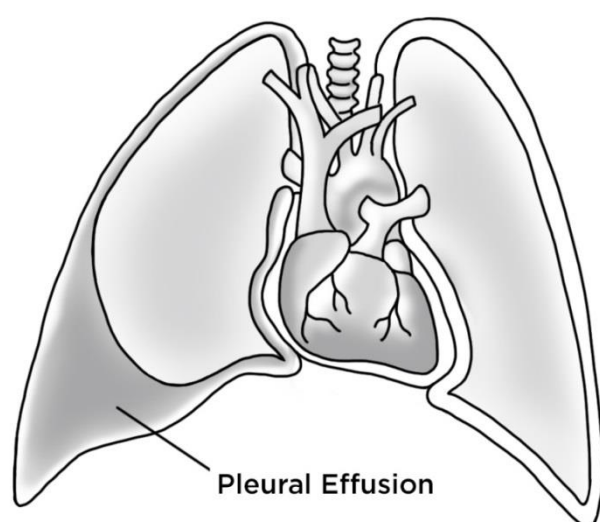
Introduction

This leaflet explains what an indwelling pleural catheter (IPC) is and how to prepare for an IPC insertion. Please ask our team any questions you have about the information below.

What is an IPC?

An IPC is a small, specially designed tube which can drain fluid from around your lungs easily and painlessly whenever needed. It avoids the need for repeated uncomfortable procedures every time the fluid needs to be drained. The drainage can be performed either by you, a friend/relative or by a district nurse.

The IPC is a soft, flexible tube (thinner 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 stop fluid leaking out. The tube can then be attached to drainage bottles as needed.



Why do I need an IPC?

The pleural space consists of two thin membranes – one lining the lung and the other lining the chest wall. Between these layers, there is usually a very small space which is almost dry. In your case, fluid has collected in this space so that the lung cannot work properly, making you breathless. Draining away the fluid helps relieve breathlessness for a time, but the fluid then often builds-up again making you breathless again.

While it is possible to have repeated drainage of fluid in this way, it can be uncomfortable and means many trips to hospital. The IPC is a way of allowing fluid to be repeatedly drained without you having to come to the hospital each time.

Are there any alternatives to IPC?

When pleural fluid builds-up the main options for managing this are as follows:

- an **IPC**
- **repeated pleural aspirations** – these have the advantage of avoiding a semi-permanent drain, but are likely to require repeated visits to the hospital for multiple procedures
- **admission for an attempted ‘pleurodesis’** – a procedure which aims to stick the two linings of the lung together. This requires admission to hospital for a minimum of three or four nights. A chest drain will be inserted by the doctors, and they will aim to drain your pleural space completely, and then inject a medical talc through the drain to try and stick the lining together. We have a separate information leaflet for this. Please note this option is not suitable for all patients with a pleural effusion – your doctor will advise.

There is an excellent website we recommend for patients with pleural effusions which explains all your options with videos: [Welcome to ‘My Pleural Effusion Journey’](http://mypleuraleffusionjourney.com) (mypleuraleffusionjourney.com)

How do I prepare for my IPC insertion?

Please make sure we have your correct telephone number and, ideally, an email address. We will contact you by telephone a few days before your procedure to confirm your attendance. If we are unable to reach you, your appointment will be given to someone else who is waiting.

We need details of all your medications (please bring them with you), allergies and any medical conditions. It is important to let us know in advance if you take blood-thinning medications as we temporarily stop these before your procedure.

Blood-thinning medication instructions

Warfarin	Usually stopped 5 full days before the procedure. You will need an ‘INR’ blood test 1-2 days before the procedure to ensure your ‘INR’ is below 1.5. Please let us know if you are on warfarin and why, as in some situations, we may give you an alternative shorter-acting agent to take instead, in the lead-up to your procedure.
Aspirin	Do not take on the morning of the procedure
Clopidogrel	Usually stopped 7 full days before the procedure
Dipyridamole	Usually stopped 7 full days before the procedure
Ticagrelor	Usually stopped 7 full days before the procedure
Rivaroxaban	Usually stopped 2 full days before the procedure

Apixaban	Usually stopped 2 full days before the procedure
Dabigatran	Usually stopped 2 full days before the procedure
Dalteparin (injections)	Usually stopped 1 full day before the procedure
Enoxaparin (injections)	Usually stopped 1 full day before the procedure

You should take all your other medications as usual on the morning of the procedure.

What will happen on the day?

If you are not already an in-patient, and are having the procedure at St Mary's Hospital, please come to the reception desk in **endoscopy, second floor of the Queen Elizabeth the Queen Mother (QEQM) building** at the time you have been given ([Imperial College Healthcare NHS Trust | Hospital map](#)).

If you are not already an in-patient, and are having the procedure at Charing Cross Hospital please come to **5 North at Charing Cross Hospital, in the main Tower Block**, at the time you have been given ([Imperial College Healthcare NHS Trust | Charing Cross Hospital site map](#)).

When you arrive, please check-in with our receptionist who will arrange for a nurse to greet you and take your blood pressure, heart rate and temperature, and ask you a few questions about your medical history, medications, and any allergies. Please let us know if you may be pregnant.

The procedure will be explained to you again and you will have the opportunity to ask any questions. You will be asked to sign a consent form.

When your IPC insertion is due to start, you will be shown into the procedure room and asked to lie on a couch, either on your left or right side. Your blood pressure, oxygen levels and heart rate will be monitored using a cuff on your arm, and a sensor on your finger.

We may give you some oxygen into the nose or mouth. If needed, we can give you medication into a tube in the vein to make you feel sleepy, although we do not normally need to do this.

The doctor will do an ultrasound scan to find where best to place the IPC. This involves some jelly on the chest and is not painful, but the jelly may be cold. The IPC is usually put into the side of your chest, below the armpit, as it is more comfortable, and you can sleep on your back. 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 IPC will go. This can feel mildly painful but the pain disappears quickly. Your doctor will then make two small cuts in the numb areas of skin and gently open a path for the IPC. This should not be painful, although you may feel some pressure or pulling.

One cut is for the IPC to pass through the skin, and the second is for it to be passed into the chest. The IPC is then gently inserted into the chest.

Are there any risks involved in having this procedure?

In most cases, the insertion of the IPC is a routine and safe procedure. However, like all medical procedures, IPCs can cause some problems. All of these can be treated by your doctors and nurses:

Pain

Most people get some discomfort from their IPC in the first week. You can take simple painkillers to control this.

Infection

Sometimes IPCs can become infected and need treatment, but this is uncommon (affecting up to 1 in 10 patients). Your doctor will thoroughly clean the area before putting in the IPC to help avoid this. We will teach you how to keep your IPC clean.

Tell your doctor if you have any problems such as fever (high temperature), increasing pain, redness around the IPC, or discharge from the IPC site.

Bleeding

Very rarely, during its insertion, the IPC may accidentally damage a blood vessel and cause serious bleeding. This affects less than 1 in 500 patients. Unfortunately, if it does happen it can be a serious problem requiring an operation to stop it.

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

Generally, IPCs work well in the long-term. The main risk is infection entering the chest down the IPC. This risk is minimised by good IPC care and hygiene. We will teach you how to look after your IPC. Sometimes cancer cells can invade the area around the IPC. Please let your doctors know if you develop a lump, or any pain around your IPC after it is inserted. If this problem does develop, your doctor will advise you on appropriate treatment.

What happens after the IPC insertion?

The IPC insertion procedure usually lasts between 20 and 30 minutes and we will drain some fluid from the pleural space whilst you are with us. Afterwards, you will be monitored by a nurse in our recovery area. You will also have a chest x-ray after the drain is inserted.

After a short period of observation, if you feel well, you will be ready to be collected and taken home the same day. It is preferable if someone accompanies you home, either driving you home or travelling with you in a taxi. Ideally, you should not be alone overnight after your procedure.

If you were given any sedative medication during the procedure, you should not drive, work, operate machinery, drink alcohol, sign any legal documents or be responsible for small children for 24 hours after the procedure. This is because the sedation can affect your judgement and behaviour slightly (even if you are feeling fine).

How does the IPC stay in position?

IPCs are designed to be a permanent solution (although they can be removed if they are no longer needed). There is a soft cuff around the IPC under the skin, around which the skin heals and so keeps it in position and stops it from falling out. Two stitches will be put in when your IPC is inserted. Both should be removed after 10 days.

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

Drainage of the fluid is a straightforward procedure and there are several ways to do this. District 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 at a convenient time. If, however, you or your relative/friend is unable to drain the fluid, then we can arrange for a district nurse to continue to do this for you several times a week. We will discuss these arrangements with you further before you are discharged from hospital.

How often can I drain fluid and how often do I need to do this?

When your IPC is inserted, most of the fluid from your chest will be removed at the same time. The rate the fluid comes back varies and some patients need daily drainage whilst others require only weekly drainage or less. You can drain fluid as often as is needed. We will discuss with you how often this may need to be done.

Can I wash and shower normally?

Initially after insertion there will be a dressing placed on the IPC and we advise you to keep this dry until the stitches are removed. Providing the site is then clean and dry, you will be able to bathe and shower normally.

When is the IPC taken out?

IPCs are designed to remain in position permanently. However, sometimes the fluid drainage from the chest dries up and the IPC is no longer needed. In this situation the IPC can be removed as a day case procedure.

How to contact us

If you have any questions or concerns leading up to the appointment, please contact the pleural team on **07876138418** or imperial.pleural@nhs.net (Monday-Friday, 09.00-17.00).

If you have had an IPC inserted and experience marked breathlessness, pain, dizziness or light-headedness outside of these hours, please attend your local A&E, taking this leaflet with you.

Pleural consultant (via secretary)
Telephone: 020 3312 7942
Monday – Friday 09.00 – 17.00

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3312 7777** (10.00 – 16.00, Monday to Friday). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team: imperial.communications@nhs.net

Wi-fi

Wi-fi is available at our Trust. For more information visit our website: www.imperial.nhs.uk

Department name: Respiratory Medicine
Published: May 2022
Review date: May 2025
Reference no:5116
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