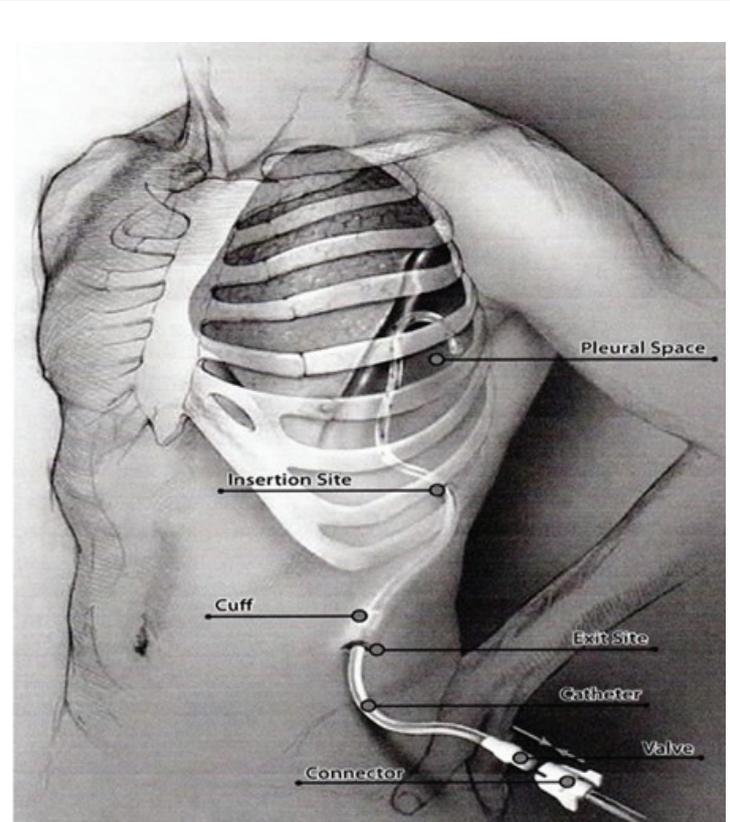


Patient information sheet and consent form Indwelling Tunneled Pleural Catheter (IPC)

Your Respiratory or Cancer Specialist has recommended you to undergo an indwelling tunneled pleural catheter insertion. This is a soft flexible silicon tube (that is thinner than a pencil), which remains inside the chest and passes out ("tunneling") through the skin.

Indwelling catheters are designed to be a permanent solution to the problem of pleural fluid (although they can be removed if they are no longer needed). There is a soft band around the tube under the skin, around which the skin heals and so keeps it securely in position and prevents it from falling out. There is a valve on the outer end of the tube to prevent fluid leaking out. It is designed to drain fluid from around your lungs easily and painlessly whenever it is needed. It avoids the need for repeated painful injections and insertion/removal of chest tubes every time 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 a 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 short of breath.

Draining away the fluid through passing a small tube temporarily into the pleural space (needle thoracocentesis) helps relieve breathlessness for a time, but in some situations, the fluid can re-collect making you short of breath again.

Whilst it is possible to have repeated needle thoracocentesis, it can be uncomfortable and means many 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 having repeated uncomfortable fluid drainage procedures.

■ Are there any alternatives?

Besides repeated needle thoracocentesis, a small bore chest drain (sterile plastic tube) can be placed between the ribs using local anaesthetic to drain the fluid, and then sterile talc can also be flushed into the pleural space to try to prevent the fluid from returning. This usually involves an inpatient stay of several days. Less than 10% patients can experience high fever and chest pain. Fluid does not return in two thirds of cases after having the talc pleurodesis.

■ What happens during an IPC insertion?

The insertion of a tunneled pleural catheter is performed by a trained doctor at the hospital and does not require a general anaesthetic. Local anaesthetic will be used and some light sedation if required.

You will be asked to either sit or lie in a comfortable position before the procedure. An ultrasound scan of your chest will be done to establish a suitable position for the drain. This is completely painless. Once you are resting comfortably, the skin will be cleaned with an alcohol fluid. This fluid often feels cold. A local anaesthetic is then injected into the skin to numb the area where the catheter will go. This can feel mildly uncomfortable but this pain passes off quickly. Sometimes a small dose of intravenous (IV) sedative may be given to reduce the discomfort.

Your doctor will then make two small cuts in the numb areas of skin and create a path for the 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 positioned into the chest. The two skin incisions are then closed with sutures. Self-adhesive water resistant dressings are then applied to the skin incision sites. The sutures can be removed after 7 days.

The procedure will take approximately 1 hour to perform. The drainage of the fluid and a follow up chest X-ray may take a further 2-3 hours. Most patients can be discharged after this on the same day. If samples are needed for further analysis, this can be collected from the drainage system after the catheter is inserted.

■ What happens after the procedure?

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

A specialist nurse 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. If, however, you or your relative/friend are unable to drain the fluid, then we will arrange for a member of our RCCP (Respiratory Coordinated Care Program) team to do this for you in your home.

In both situations, a special drainage kit is required to access the tube. We will make these arrangements so you will not need to organise any of this for yourself.

How often to drain the fluid will depend on the rate the fluid comes back. This varies between people and some patients need daily drainage while others require only weekly drainage or less. We will discuss with you how often this may need to be done.

Initially after insertion there will be a dressing placed on the catheter and we ask you to keep this dry until the stitch is removed 7 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.

■ What are the risks?

In most cases the insertion of a chest drain and its drainage is a routine and safe procedure. However, minor complications can occur. All of these can be treated by your doctors and nurses:

Discomfort - Most people get some discomfort from their indwelling catheter in the first week. We will provide you with pain killing medication to control this.

Infection - Sometimes IPC (or specifically the skin around the insertion site) can become infected but this is uncommon (2% of patients). Your doctor will thoroughly clean the area before putting in a peritoneal drain to try and prevent this and you will be taught how to keep your catheter clean.

Bleeding - Very rarely, during the insertion, the drain may accidentally damage a blood vessel and cause serious bleeding. This probably only affects about one in 500 patients. Unfortunately, if it does happen it can be a serious problem which requires an operation to stop it. Very, very rarely such bleeding can be fatal. Of course, everything possible will be done to avoid this.

Long Term Risk - Generally indwelling catheters are well tolerated in the long term. The most common risk is infection around the drain site (2-4%) and rarely entering the peritoneal cavity through the tube. This risk is minimised by good catheter care and hygiene.

There is also a 4% risk that the TIPC drainage can be blocked and <1% risk of the TIPC falling out.

Sometimes cancer tissue can affect the area around the indwelling catheter (<1%). 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 an IPC be removed?

TIPCs are designed to remain in position permanently. However, sometimes the fluid in the chest dries up and the catheter is no longer needed. In this situation the catheter can be removed as a day procedure at the hospital.

SUMMARY GUIDE

You are scheduled to have a Tunneled Indwelling Pleural Catheter insertion, a procedure that your doctor performs to allow long term repeated drainage of your pleural effusion without significant associated pain or hospitalisation.

- Please bring with you any medication you take.
- Please do not wear jewellery, nail varnish or make-up.
- Please let us know before you come for your procedure if you will need an interpreter.
- Please let the nurse know if you are taking any medication which thins the blood, such as Heparin, Aspirin, Plavix/Iscover, Xarelto/Pradaxa/Eliquis or Warfarin.
- Please also tell us if you have any allergies or if you may be pregnant.
- Do not drive home by yourself after the procedure; arrange for a family member or friend to take you home.
- Contact your doctor immediately if you have shortness of breath or chest pain, you cough up more than a few tablespoons of blood at home, redness or presence of pus around the drainage site, dislodgement of the drain, any abnormal growth around the drain, or develop high temperatures and fever.

If you have any questions or concerns, please contact:

Sutherland Hospital Respiratory Coordinated Care Program (RCCP)

Tel: (02) 9540 7595 or **Mobile:** 0428 977 974

(Mobile number can be contacted 7 days per week)

Patient Instruction after Tunneled Indwelling Pleural Catheter

The responsible adult escorting you home should also be aware of the following instructions.

The effect of the sedation can take some time to wear off and your memory loss may persist longer than the sedation. Your escort needs to know that you may not carry out instruction even though you appear to acknowledge them.

Your chest might be a little sore (especially at drain site) and this will wear off.

**SEDATION WILL AFFECT YOUR JUDGMENT FOR ABOUT 24 HOURS.
DURING THIS TIME FOR YOUR OWN SAFETY AND IN SOME CASES LEGALLY:**

- DO NOT drive any type of car, bike or other vehicle and take extra care as a pedestrian
- DO NOT operate machinery
- DO NOT drink alcohol
- DO NOT use cooking appliances or handle dangerous items such as boiling water
- DO NOT make critical decisions or sign a legal document
- DO NOT do activities that require coordination or balance
- Ensure that you have a responsible adult to care for you until tomorrow
- Rest at home for the remainder of the day

Your doctor may prescribe you medication for pain or other indications:

- Take medication prescribed

SEEK MEDICAL ADVICE FROM YOUR GP or HOSPITAL IF YOU NOTICE ANY OF THE FOLLOWING:

- Have trouble breathing or speaking
- Have a high temperature or fever $>38^{\circ}\text{C}$
- Have redness, pain or swelling for more than 48 hours where you had the injection for sedation (hand or arm) or at TIPC insertion site
- IPC falling out
- Any abnormal growth around the site
- Any symptoms that you think is related to today's procedure and is causing you serious concern

Please ensure you have an arranged follow up with your respiratory specialist within 2 weeks of the procedure. The RCCP nurse will contact you regarding frequency and timing of home visit to perform drainage.

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