Department of respiratory medicine

Pleurodesis:
Attaching the lung to the chest wall to control fluid or air in the space around the lung

What is pleurodesis?

Pleurodesis is a procedure that involves putting a mildly irritant drug into the space between your lung and chest wall (pleural space). It is done to try to ‘stick’ the lung to the wall of the chest and to prevent the re-accumulation of fluid or air which has collected in this space. The drug is put into the chest through the chest tube that you already have. Pleurodesis is an inpatient procedure and is usually carried out on the ward.

How does pleurodesis work?

The drug that is put into your pleural space will cause irritation to the lining of the lung and the chest wall. This causes the surfaces to become sticky and to bond together, sealing up the space between them and so preventing fluid or air from collecting there.

Why do I need pleurodesis?

The doctor has suggested pleurodesis as you have had a collection of fluid or air in your pleural space and we believe it is likely to recur in the future if nothing is done to seal up the area where it has collected. Pleurodesis will prevent this happening.

Do I have to have it done?

No, but your doctors believe this is the best way of stopping the problem in your chest coming back. However, it is your choice whether to go ahead with this treatment.

What does the treatment involve?

The pleurodesis will be done through the tube (chest drain) that has already been put into your chest to drain away the fluid or air that has collected in your pleural space. Once your chest drain has drained completely, the pleurodesis drug (which is usually sterile talc) will be put into your chest through this drain. The drug is usually injected in a liquid form.

Sometimes pleurodesis can cause some pain. We will give you some painkillers before the procedure to help with this. It is still quite common to feel some discomfort during the procedure. If this happens, please let the nurse or doctor know so that we can give you more painkillers.
After the pleurodesis drug has been put into your chest, your drain may be closed off for about one to two hours. The drain will then be re-opened to allow drainage of any fluid or air to begin again. The chest drain is usually left in position for 24 to 72 hours, but it may be left longer if the drainage of fluid or air continues. You will need to stay in hospital until the drainage is reduced and the doctor considers the drainage tube is no longer needed. Once the drain is removed the procedure is complete. A single stitch is sometimes needed to close the site where the chest drain was inserted. If so it will be removed after seven days.

**How successful is pleurodesis?**

Pleurodesis stops the collection of fluid or air recurring in about 7 to 8 out of 10 cases (70-80%). If it comes back, further drainage may be required. In some cases, another attempt at pleurodesis can be made. If a second pleurodesis is needed, the success rate is often lower.

**What are the expected benefits?**

When fluid or air accumulates in the pleural space it usually causes breathlessness. Pleurodesis prevents fluid or air accumulating, and so improves breathing.

**What are the risks or complications?**

Most patients undergo pleurodesis without any major problems. However, like all medical treatments, it does have some risks:

- Sometimes patients experience chest pain from pleurodesis. Painkillers are given as needed to help relieve this.
- Some patients experience fever for the first day or two after the procedure. This is usually controlled with paracetamol and is short-lived.
- Sometime pleurodesis can cause breathlessness due to too much inflammation in the lung. This usually settles down over a few days with oxygen treatment, although very, very rarely (about 1 in 1000) it can be serious.
- All treatments that require a tube in the chest carry some risk of causing infection. This happens in about 1 in 50 (2%) of patients. If it does happen it usually settles with antibiotic treatment, although it may lead to a longer hospital stay.

**What are the alternatives?**

For patients with collections of fluid the following options are available:

- The fluid can be drained out of the chest and then the chest drain removed and the patient sent home. This treatment has the advantage that the patient can go home and
does not have a chest drain but the major disadvantage is that the fluid is likely to come back (in almost 100% of cases) and further treatment will be needed.

- A relatively new procedure is one where a small flexible tube (called an indwelling pleural catheter) is placed in the chest which the patient goes home with and either the community nurses drain at home or the patient learns how to drain themselves. Given that pleurodesis has a good success rate (80%) this treatment is considered to be one that is used only if pleurodesis fails.

How to contact us/ further information

If you would like any further information about this procedure please contact the interventional pulmonology/ pleural service on 01223-349189.

Privacy & dignity

Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high-tech equipment and/or specialist one to one care is required.