

Needle Aspiration of Pneumothorax

General Information

Pneumothorax is the collection of air in the pleural cavity. It can occur spontaneously or secondary to trauma or lung diseases. Patient with pneumothorax usually presents with sudden onset of shortness of breath and pleuritic chest pain. Pneumothorax is usually diagnosed by chest X-ray.

The method of treatment depends on the patient's condition and the extent of pneumothorax. It is decided by the clinical judgment of the medical staff. Common methods include needle aspiration, chest drain insertion and observation with supplemental oxygen.

This fact sheet focuses on the method with needle aspiration.

Procedure

In general, the procedure will take around 15 minutes. The chest wall of the patient is exposed and disinfected. The medical staff will prepare local anesthesia to the patient. An angiocatheter will be inserted to the upper anterior part of the chest of the affected side. It is connected to a needle syringe. After confirmation of the position of the angiocatheter in the pleural cavity, air will be aspirated by the syringe to relieve the pneumothorax. X-ray will be repeated after the procedure. Patient may need to have further observation at hospital

Potential Risks and Complications (include common and important risks and not exhaustive)

- Allergy to local anesthetics
- Injuries to lung, vessels, nerves and other adjacent structures
- Persistent pneumothorax, with need of subsequent procedures such as chest drain insertion or operation
- Needle insertion site persistent pain, numbness or infection
- Pulmonary edema, chest infection, respiratory failure, death in severe case

When to return to A&E after Needle Aspiration of Pneumothorax?

You have suffered from pneumothorax which were treated successfully with needle aspiration in the emergency department. However, unexpected change in condition is possible within these days after discharge.

You are advised to return to the emergency department if you experience:

- Worsening chest pain
- Sudden or worsening shortness of breath
- Severe bleeding from the chest wound

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In different patient groups, the actual risk may be different. For further information please contact your doctor.