



North Tees and Hartlepool
NHS Foundation Trust

Pneumothorax

Information for patients

This leaflet can be made available in other formats including **large print**, CD and Braille and in languages other than English, upon request.

What is a pneumothorax?

A pneumothorax is also known as a collapsed lung. It is a condition when air has leaked out from the lung in to the chest cavity and chest wall. This causes the lung to collapse down and peel away from the inside of the chest.

What causes a pneumothorax?

There are different types of pneumothorax:

- **Primary pneumothorax:** This is when someone has developed as pneumothorax who doesn't have any known lung problems. Usually the air has leaked from a blister or bleb on the surface of the lung which has been present from birth.
- **Secondary pneumothorax:** This is the term applied when a patient has a known underlying lung condition which predisposes them to this problem. For example, Chronic Obstructive Pulmonary Disease (COPD) or emphysema.
- **Traumatic pneumothorax:** This refers to when someone has suffered an injury to the chest wall such as a fall which has caused damage to the surface of the lung
- **Iatrogenic pneumothorax:** Describes when a pneumothorax has happened after a medical procedure. This can include lung biopsies, camera tests and procedures to remove the fluid from the lung.

A pneumothorax can happen more commonly in smokers. There are rarer genetic lung conditions which can predispose people to lung damage who can develop a pneumothorax because of this.

What symptoms might I get?

The most common symptoms are sudden shortness of breath and chest pain (which may be sharp and worse with coughing and breathing).

You may also experience a dry cough.

If air has leaked out into the muscles and skin in your chest wall you may notice a swelling and a “bubble wrap” sensation if you press on your chest.

Occasionally if the leak of air has been very large you may feel faint or light headed.

How is it diagnosed?

The most important investigation to diagnose a pneumothorax is a chest X-ray. This is usually enough in most cases to show the collapsed lung.

Sometimes a CT scan, which is a three dimensional X-ray, may be arranged for a more detailed assessment of the pneumothorax, or if the team aren't confident based on your chest X-ray.

You may also have other tests in addition to X-rays. These can include blood tests and heart tracings (ECGs), especially if you have been very unwell. This is to look for other causes and have an idea of how the pneumothorax is affecting the rest of your body.

If the pneumothorax has made you very unwell when you were first admitted, the doctors may have had to do a procedure to relieve it before you had an X-ray or any other tests. This is very rare.

What treatment might I have?

The treatment for your pneumothorax would depend on how large it was and also how unwell it made you.

A small pneumothorax may not need any treatment. In this case the lung heals itself and gradually reabsorbs the air that has leaked out.

This generally takes 1 - 2 weeks. In this situation you may be admitted to hospital overnight and have another chest X-ray the following morning to make sure that no more air has leaked out.

You will normally be brought back for further X-rays as an outpatient until your lung has returned to normal.

Larger pneumothoraxes may need a procedure to remove the air and allow the lung to re-inflate. These can include:

Pleural Vent

This is a small chest drain which is inserted in the upper part of the front of your chest wall. It allows the air to escape from your chest. It is used in patients whose pneumothorax is expected to take 1 - 3 days to heal.

It is inserted under local anaesthetic and you can return home shortly after it has been put in. You will need to return to clinic usually every day or two to check that things are getting back to normal.

Pleural aspiration

This is a procedure where a small needle or plastic tube is inserted between the ribs of your upper chest wall and the air removed using a syringe.

This is a fairly simple procedure, done under local anaesthetic. It is normally performed when a patient has had a pneumothorax in a situation that the lung is expected to heal very quickly. This may happen after a procedure such as a lung biopsy.

Chest drain (Intercostal drain)

This is a procedure where a small plastic tube (slightly larger than the one used for a pleural aspiration) is inserted between the ribs. This is usually inserted in your armpit or back. This tube usually stays in place for at least 24-48 hours.

It is attached to a small plastic fluid filled container which sits on the floor next to your bed. This allows the air to bubble out without going back into your chest. The chest drain is removed when the air has stopped bubbling out of the drain and the team are happy that the lung has healed.

Very occasionally the tear in the lung doesn't heal. In this situation we may apply 'suction' to the drain to draw air out. If this still doesn't heal the lung, we may ask the chest surgeons to consider doing an operation to try and find the damage to the lung and repair it.

Could this happen again?

About 1 in 3 people who have had a pneumothorax will have another within 12 months.

This is more likely if you continue to smoke if or if you have an underlying condition.

What can I do to help myself get better?

If you smoke the best thing you can do is to stop or cut down.

While you are getting better we do encourage gentle exercise such as walking. You will feel more easily breathless than usual for you.

We ask you to avoid strenuous exercise and lifting heavy objects for at least 4 weeks.

What if it happens again?

If your symptoms come back, we ask you to attend your nearest A&E department. If you are unwell please ring 999 and explain that you have had a pneumothorax recently and that you are feeling the same symptoms. If you are well enough to make your own way to hospital, we ask you not to drive but to get someone else to.

If your pneumothorax has come back, the treatment is likely to be the same initially. Once you have recovered we will refer you to a chest surgeon to consider an operation to look inside your chest and perform a procedure to stop this happening again.

We only refer you for this if you have had at least two collapsed lungs on the same side of your chest or if both of your lungs have collapsed at different times.

Will I need any other tests or follow up?

You will usually be asked to come back to the chest clinic, especially if you have had a small pneumothorax which hasn't had any treatment.

If your team suspect there may be an underlying condition that has caused this pneumothorax, they may also ask you to have blood tests, CT scans and breathing tests. They will arrange for you to come to clinic to review the results.

What other things do I need to think about?

You should not fly while your lung is healing. Most airplane companies will allow you to fly 2 weeks after a chest X-ray which has shown that the pneumothorax has healed.

We are more conservative and would advise you to wait at least 6 weeks and preferably 3 months before you consider flying.

If you have had a pneumothorax we advise you never to take up scuba diving as a hobby, unless you have had surgery to repair the damaged bit of lung.

You are unlikely to be offered employment as a professional diver if you have had a pneumothorax unless you have had a definitive operation to your chest to ensure that it cannot happen again.

Where can I find more information

You can find more information at the British Lung Foundation

<https://www.blf.org.uk/support-for-you/pneumothorax>

Contact Numbers

University Hospital of North Tees Lung Health

Telephone: 01642 624270

Department of Respiratory Medicine

Telephone: 01642 624936 Monday – Friday 9 am – 5 pm

Emergency Department

Telephone: 01642 382899 24 hours a day, 7 days a week

This leaflet has been produced in partnership with patients and carers. All patient leaflets are regularly reviewed, and any suggestions you have as to how it may be improved are extremely valuable. Please write to the Clinical Governance Team, North Tees and Hartlepool NHS Foundation Trust, University Hospital of North Tees or Email: nth-tr.leaflets@nhs.net

Comments, Concerns, Compliments or Complaints

We are continually trying to improve the services we provide.

We want to know what we're doing well or if there's anything which we can improve, that's why the Patient Experience Team is here to help.

Our Patient Experience Team is here to try to resolve your concerns as quickly as possible. If you would like to contact or request a copy of our PET leaflet, please contact:

Telephone: 01642 624719

Monday – Friday, 9.30am – 4.00pm

Messages can be left on the answering machine and will be picked up throughout the day.

Freephone: 0800 092 0084

Email: nth-tr.PatientExperience@nhs.net

Out of hours if you wish to speak to a senior member of Trust staff, please contact the hospital switchboard who will bleep the appropriate person.

Telephone: 01642 617617

24 hours a day, 7 days a week

The Patient Experience Team is available to discuss your concerns in person Monday – Friday, 9.30am – 4.00pm. The office is based on the ground floor at the University Hospital of North Tees.

Data Protection and use of patient information

The Trust has developed a Data Protection, Caldicott and Disclosure Policy (IG5) in accordance with the Data Protection Legislation (General Data Protection Regulations and Data Protection Act 2018) and the Freedom of Information Act 2000. All of our staff respect this policy and confidentiality is adhered to at all times. If you require further information please contact the Information Governance Team.

Telephone: 01642 383551 or Email: nth-tr.infogov@nhs.net

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