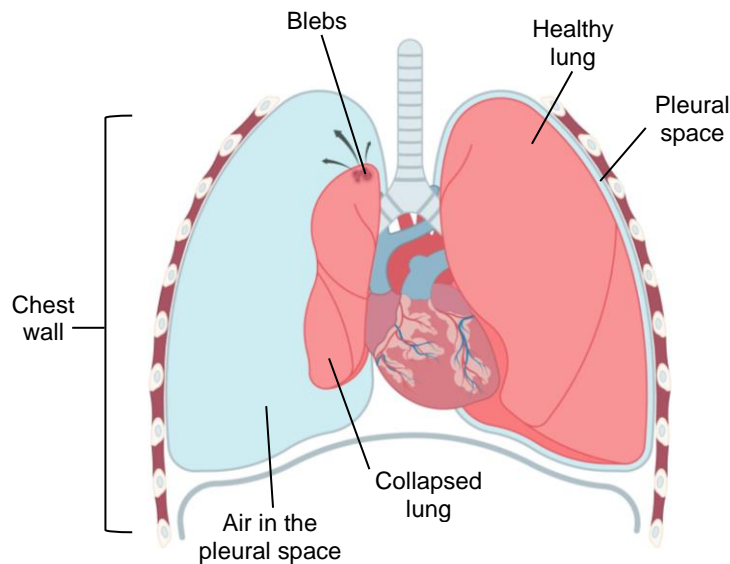


Spontaneous Pneumothorax

A pneumothorax (noo-moh-**thor**-ax) is a pocket of air between the lungs and the chest wall. This is called the pleural space. An air pocket may form after an injury, after surgery, or quickly without cause (spontaneously). A spontaneous pneumothorax usually happens when a weak part of the lung is leaking air. These areas are like blisters on the lungs, called blebs. They can burst and leak air into the pleural space (Picture 1).



Picture 1 Spontaneous pneumothorax is when air fills the pleural space suddenly.

Risk Factors

People with the following are at greater risk for spontaneous pneumothorax:

- Tall and thin
- Smoke or vape
- Have a family history of pneumothorax
- Born with a connective tissue disorder, like Ehlers-Danlos or Marfan syndromes

Signs and Symptoms

- Sharp chest pain
- Hard to breathe
- Low oxygen levels and low blood pressure (These are rare.)

Diagnosis

Your child's doctor or health care provider will order a chest X-ray. This will show if the lung is collapsed and the size of the pneumothorax. A computed tomography (CT) scan may be needed.

Treatment

- Small leaks may go away on their own without treatment. Your child's doctor or health care provider will check to make sure the pneumothorax doesn't get worse.
- For bigger leaks, a chest tube may need to be placed in the pneumothorax. It can remove the air and fill up (inflate) the collapsed lung. These are usually in place for 12 to 48 hours.
- A surgery called video-assisted thoracoscopic surgery (VATS) may be needed if the pneumothorax continues even with a chest tube. With VATS:
 - A surgeon makes small cuts (incisions) in the chest. A small camera, called a thoracoscope, is inserted into the chest to find weak spots on the lungs to remove.
 - A chest tube is placed after surgery. It will be removed when air stops leaking from the lung. This is usually seen on an X-ray because the lung will stay inflated.

After Treatment

- If your child had a chest tube:
 - Remove the bandage (dressing) 3 days after the chest tube was removed. Leave it open to air. If there is drainage or the area is moist, apply a gauze bandage. Change it each day until the area has healed.
 - They cannot take a tub bath or go swimming for 1 week. They can shower after the dressing is removed.
 - They can return to school after 2 to 3 days. They cannot take part in gym class or recess until their doctor or health care provider says it's okay.
 - Give them the pain medicine they were prescribed. Follow the directions on the label or in the going home (discharge) instructions.

- If your child had VATS:
 - Remove the dressing over where the chest tube was 3 days after it is removed. Leave it open to air. If there is drainage or the area is moist, apply a gauze bandage and change each day until healed.
 - The surgical glue or clear dressings at the surgery sites will fall off on their own. **Do not use lotion, moisturizer, or ointment on these sites.**
 - They cannot take a tub bath or go swimming for 1 week. They can shower after the dressing is removed.
 - They can return to school after 2 to 3 days. They cannot take part in gym class or recess until their doctor or health care provider says it's okay.
 - Give them the pain medicine they were prescribed. Follow the directions on the label or in the discharge instructions.

Care at Home

- Most children heal well after a pneumothorax. To help with healing, they should **not** do the following until their doctor or health care provider says it's okay:
 - Hold their breath too long.
 - Fly in an airplane or helicopter.
 - Play sports.
 - Dive into pools.
 - Lift heavy weights.

When to Call the Doctor

Call your child's doctor or health care provider if they have:

- A fever over 101° Fahrenheit (F) or 38.3° Celsius (C).
- Redness or worse pain at the surgery site.

When to Call 911

Call 911 or take your child to the closest emergency department if they have:

- Worsening chest pain.
- A hard time breathing.