Pneumomediastinum

Pneumomediastinum occurs when air leaks into the mediastinum. The mediastinum is the area between the two lungs, just behind the breastbone. This area contains the heart, the wind-pipe and other important organs.

CAUSES

Pneumomediastinum is uncommon and happens when a condition or injury causes air to leak out of the lungs or abdominal organs and into the mediastinum.

In adults, the most common causes include:

- Childbirth.
- Chest or abdominal injuries.
- Asthma.
- Problems during scuba diving.
- Problems during the use of a mechanical ventilator to assist breathing.
- Inhalation of crack cocaine, Ecstasy, methamphetamine or marijuana use.
- Infections in the face, neck, chest or abdomen.
- Facial fractures.
- Extreme strain during severe coughing or throwing up (*vomiting*).
- A hole in the intestine or esophagus.
- Accidental perforation of the lung or intestine during a medical procedure or surgery.

In children, the most common causes include:

- Injury.
- Lung infections.
- Asthma.
- Accidentally breathing an object into the airway.
- "Huffing" (inhaling chemicals or aerosols for the purposes of "getting high").

SYMPTOMS

The main symptoms include:

- Chest pain, which may run into the neck, shoulder, back or arms.
- Increased pain with movement, swallowing or drawing in a deep breath.
- Problems swallowing.
- Problems speaking.
- Shortness of breath.

DIAGNOSIS

Your caregiver may suspect a pneumomediastinum based on your symptoms and exam. Tests that may be helpful include:.

- A chest x-ray, ultrasound, or CT scan may help show the presence of air in the mediastinum.
- Blood tests to help your caregiver:
  - Know how well oxygen is getting into your blood.
  - Find the exact cause of the pneumomediastinum.
  - Help your caregiver rule out other problems.
- Electrocardiogram.

TREATMENT

This condition often gets better without any treatment. Your body may slowly reabsorb the air. This process might happen faster if you breathe a higher concentration of oxygen.

If the pneumomediastinum is severe and causes compression of the heart or areas of the lungs, you will need to stay in the hospital. One of several procedures may be needed:

- A procedure called a needle aspiration. A specialized needle is inserted into the mediastinum to withdraw the trapped air.
- If the condition becomes severe and leads to a collapsed lung, you may need to have a chest tube placed.
- Some causes of pneumomediastinum (such as a hole in the intestine or esophagus) will need to be repaired with surgery.

HOME CARE INSTRUCTIONS

Until your caregiver tells you it is okay to do so, you should avoid:

- Air travel.
- Scuba diving.
- High altitudes.
- Hard physical work.
- Your caregiver will provide more instructions depending on any surgical procedures that were done in the hospital.
- Take any prescribed medicines as directed.
- Only take over-the-counter or prescription medicines for pain, discomfort or fever as directed by your caregiver

SEEK IMMEDIATE MEDICAL CARE IF YOU:

- Develop chest pain or pain in your neck, jaw or arms.
- Have trouble breathing.
- New problems with speaking or swallowing.
- An unexplained oral temperature above 102.0° F (38.9° C) develops.

Document Released: 11/30/2009
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