Part A Emphysema

**Cause:** The main cause of emphysema is long-term exposure to airborne irritants, including:

Tobacco smoke, Marijuana smoke, Air pollution, Chemical fumes and dust

Rarely, emphysema is caused by an inherited deficiency of a protein that protects the elastic structures in the lungs. It's called alpha-1-antitrypsin deficiency emphysema

**Symptoms:** main symptom of emphysema is shortness of breath, which usually begins gradually. You may start avoiding activities that cause you to be short of breath, so the symptom doesn't become a problem until it starts interfering with daily tasks. Emphysema eventually causes shortness of breath even while you're at rest.

**Treatments:** Emphysema and COPD can't be cured, but treatments can help relieve symptoms and slow the progression of the disease.

**Medications=** Depending upon the severity of your symptoms, your doctor might suggest:

* **Bronchodilators.** These drugs can help relieve coughing, shortness of breath and breathing problems by relaxing constricted airways.
* **Inhaled steroids.** Corticosteroid drugs inhaled as aerosol sprays reduce inflammation and may help relieve shortness of breath.
* **Antibiotics.** If you have a bacterial infection, like acute bronchitis or pneumonia, antibiotics are appropriate.

**Prevention**: To prevent emphysema, don't smoke and avoid breathing second-hand smoke. Wear a mask to protect your lungs if you work with chemical fumes or dust.

https://www.mayoclinic.org/diseases-conditions/emphysema/symptoms-causes/syc

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Part B Pleurisy

**Cause:** A variety of conditions can cause pleurisy. Causes include:

* Viral infection, such as the flu (influenza)
* Bacterial infection, such as pneumonia
* Fungal infection
* Autoimmune disorder, such as rheumatoid arthritis or lupus
* Lung cancer near the pleural surface
* Pulmonary embolism
* Tuberculosis (TB)
* Rib fracture or trauma
* Certain inherited diseases, such as sickle cell disease
* Certain medications and recreational drugs

**Symptoms**: Chest pain that worsens when you breathe, cough or sneeze

* Shortness of breath — often from trying to limit breathing in and out
* Cough — only in some cases
* Fever — only in some cases

Pain caused by pleurisy might worsen with movement of your upper body and can spread to your shoulders or back.

Pleurisy can occur along with pleural effusion, atelectasis or empyema:

* **Pleural effusion.** In some cases of pleurisy, fluid builds up in the small space between the two layers of tissue. This is called pleural effusion. When there is a fair amount of fluid, pleuritic pain lessens or disappears because the two layers of pleura are no longer in contact and don't rub together.
* **Atelectasis.** A large amount of fluid in the pleural space can create pressure. This can compress your lung to the point that it partially or completely collapses (atelectasis). This makes breathing difficult and might cause coughing.
* **Empyema.** The extra fluid in the pleural space can also become infected, resulting in a build-up of pus. This is called an empyema. Fever often occurs along with an empyema.

Treatments: Pleurisy that's caused by a bacterial infection or pneumonia can be resolved with a course of antibiotics. Once you start antibiotics, your symptoms should resolve within a week. It may take up to two weeks for symptoms to fully disappear.

Prevention

You can't prevent pleurisy, but you can reduce your risk by promptly treating conditions that may cause it. You should also quit smoking tobacco, using electronic cigarettes, and smoking marijuana. If you don't smoke, don't start