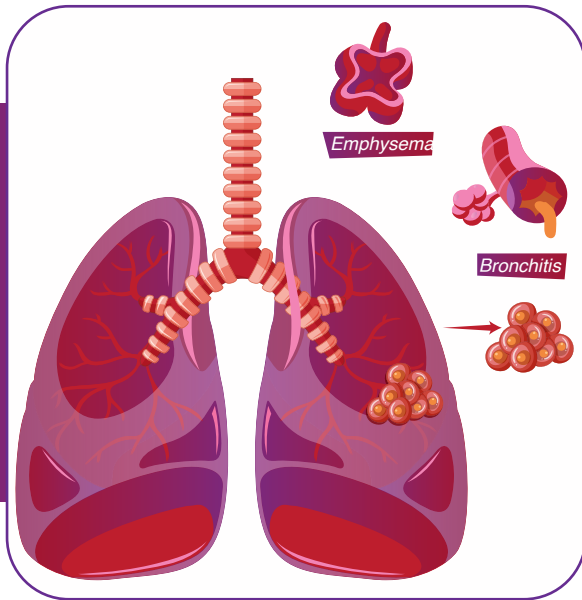
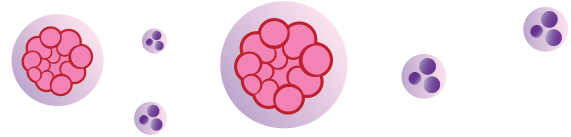




CHRONIC OBSTRUCTIVE PULMONARY DISEASE



WHAT IS COPD:

Chronic Obstructive Pulmonary Disease (COPD) is a preventable and treatable disease of the lungs, caused by an abnormal inflammatory response within the lung to noxious particles or gases. It is characterized by progressive, difficulty to stop its progression, chronic and persistent airway obstruction, with no or limited response to bronchodilators.

WHAT CAUSES COPD:

- Cigarette smoking: is the leading cause of COPD.
- Tobacco exposure (secondhand smoke)
- Recurrent infections of the lower respiratory during childhood.



- Long-term exposure to lung irritants such as air pollution, chemical fumes, exposure to biomass fuels or dust from the environment or workplace.
- Age: people older than 35-40 years of age have a higher risk of developing the disease
- Genetics

SYMPTOMS

Initially, COPD may cause no or only mild symptoms. However, as the disease progresses, the symptoms become more severe.



Shortness of breath



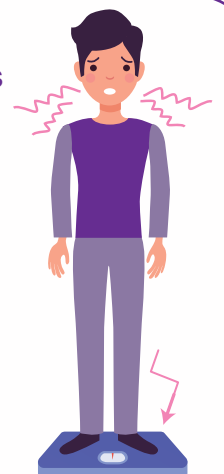
Persistent cough with phlegm



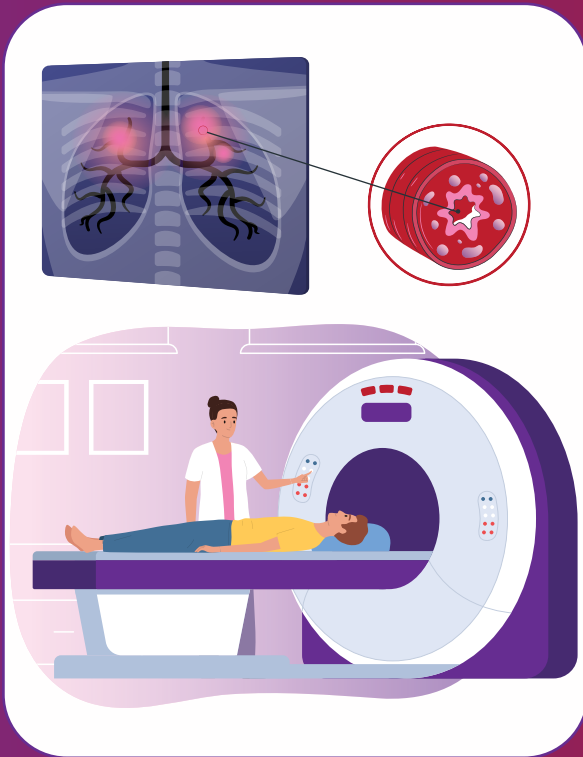
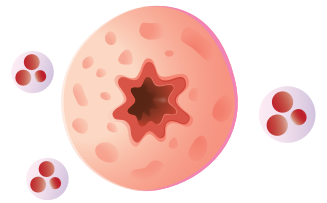
Persistent wheezing



Frequent respiratory infections

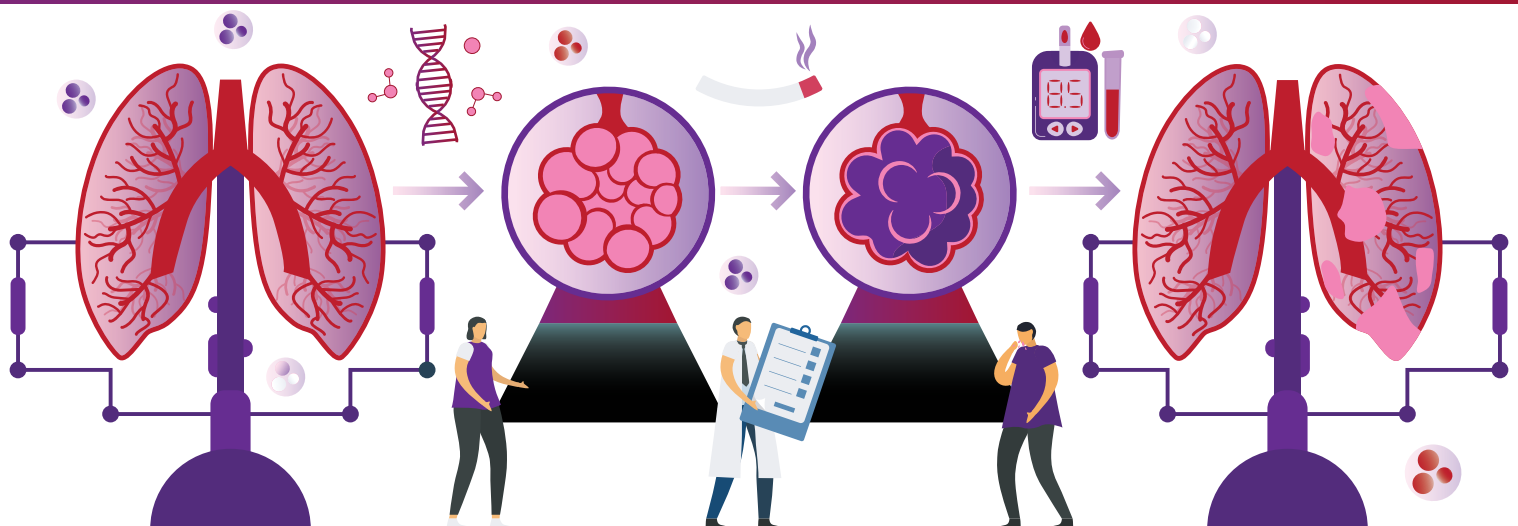


Weight loss



COPD diagnosis is based on:

- Ⓐ **Signs and symptoms:** like cough and wheezing.
- Ⓑ **Family and medical history:** smoking, exposure to irritants.
- Ⓒ **Tests:**
 - Lung function tests (most commonly spirometry): measure the amount of air the person can inhale and exhale.
 - Chest x-ray or chest CT scan: can help detect emphysema.
 - Arterial blood gas analysis: measures how well the lungs are bringing oxygen and removing carbon dioxide.



COMPLICATIONS:

People with **COPD** have a higher risk for other health problems which include:



Respiratory infections like the flu and pneumonia



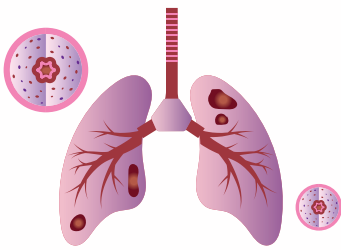
Heart problems



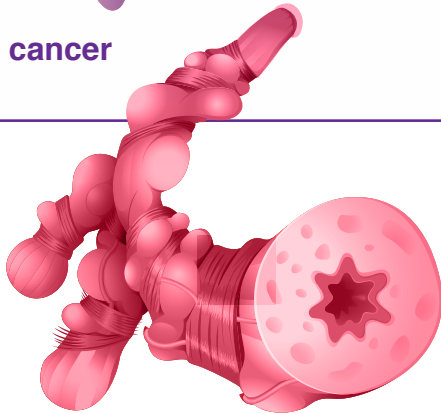
Depression



Frailty



Lung cancer



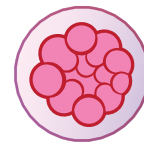
Prevention:

Ways to prevent COPD include:

- 1 Avoid smoking or stop smoking immediately.
- 2 Stay away from secondhand smoke.
- 3 Limit exposure to lung irritants.
- 4 Eat healthy food such as fruits, vegetables and meat (such as fish and poultry).
- 5 Take seasonal influenza vaccine to prevent recurrent respiratory infections.



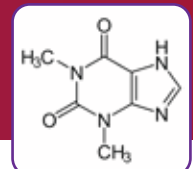
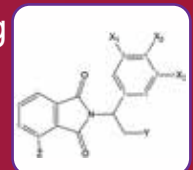
TREATMENT



A Medications:

Several medications are used for the treatment of COPD.

- a **Bronchodilators:** they come in inhalers and help relax the muscles around the airways.
- b **Inhaler steroids:** can reduce airway inflammation.
- c Combination inhalers which combine bronchodilators and inhaled steroids.
- d **Oral steroids:** short-term use can prevent further worsening of COPD.
- e **Phosphodiesterase-4 inhibitors:** approved for people with severe COPD.
- f **Theophylline:** may improve breathing and prevent further worsening of COPD.
- g Antibiotics can be prescribed to treat infections and prevent the progression of symptoms.



B Lung Therapies:

- a **Oxygen therapy:** supplemental oxygen is needed if oxygen level in the blood is low.
- b **Pulmonary rehabilitation program:** which combines education, exercise training, nutrition advice and counseling.



C Surgery:

For individuals experiencing certain types of severe emphysema that do not find adequate relief from medications alone, surgery becomes a viable choice.

