

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Agenda

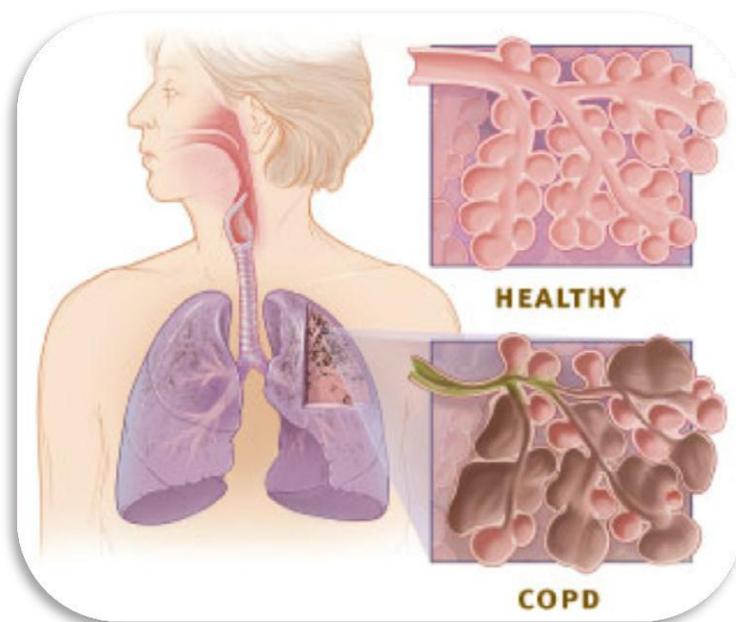
- ✓ What is COPD
- ✓ Prime Causes
- ✓ Symptoms
- ✓ Diagnosis
- ✓ COPD in India
- ✓ Prevention
- ✓ Managing the Disease
- ✓ Oxygen Concentrator
- ✓ Oxygen Concentrators offer by Leader Healthcare

What is COPD

What is COPD

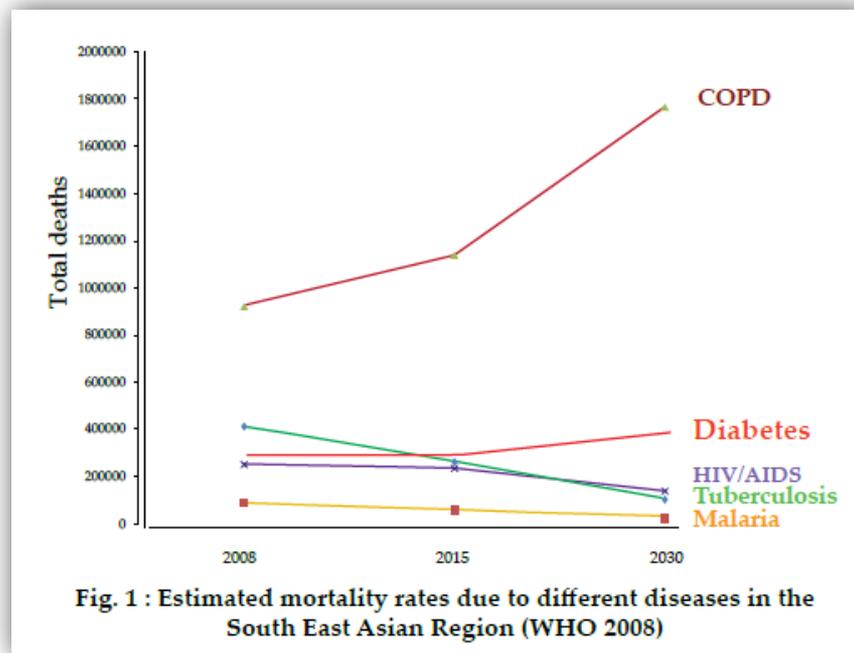
Chronic obstructive pulmonary disease

- Lungs Airways narrow over time
- Lungs Airways loss of elastic recoil and eventually collapse
- This limits airflow to and from the lungs, causing shortness of breath (dyspnea)
- Increased mucus production and reduced mucociliary clearance - cough and sputum production
- Increase smooth muscle tone
- Pulmonary hyperinflation



What is COPD

- May lead to heart disease, hypertension, skeletal muscle dysfunction, osteoporosis, depression, diabetes etc.
- Chronic Obstructive Pulmonary Disease (COPD) kills more than 3 million people every year
- 4th largest cause of death in the world.



Prime Cause

Prime Cause

- Smoking
- Occupational exposures
- Air pollution
- Others

Symptoms

Symptoms

- Tachypnea, a rapid breathing rate.
- Wheezing sounds or Crackles in the lungs
- “Breathing-Out” taking a longer time than “Breathing-In”
- Enlargement of the Chest, particularly the Front-to-Back distance (hyperaeration)
- Active use of muscles in the neck to help with breathing
- Breathing through pursed lips
- increased anteroposterior to lateral ratio of the chest (i.e. barrel chest).
- Low, flat diaphragm

Diagnosis

Diagnosis

- Spirometry
- X-Ray
- Arterial Blood Gas (ABG)

COPD in India

COPD in India

- 30 million people suffer with COPD in India
- Half a million people die every year due to COPD in India.
- 4 times the number of people who die due to COPD in USA and Europe.
- 4.29% in males and 2.7% in females.
- Prime Cause are Cigarettes, bidis, hookahs and chillums among several other forms of smoking and Biomass fuel (animal dung, crop residues, wood)
- 70% of the homes use biomass fuel for cooking and heating purposes in poorly ventilated kitchens.
- other common indoor air pollutant is the burning of mosquito coils at homes to get rid of mosquitoes, which is equivalent to around 100 cigarettes
- COPD kills half a million people in India every year, more than those who die due to tuberculosis, malaria or HIV-AIDS.

Prevention

Prevention

- Smoking cessation
- Dust control
- Improve Ventilation
- Avoid Pollution
- Regular Exercise/Yoga/Walking/Running

Managing the Disease

Managing the Disease

- Bronchodilators
- β_2 agonists
- Anticholinergics
- Long Term Oxygen Therapy
 - Oxygen Cylinders
 - ***Oxygen Concentrators***

Managing the Disease

Stage (2003 update)	0 At risk	I Mild	II Moderate	III Severe	IV Very severe
Pre-bronchodilator FEV ₁ (% predicted)	Normal	>80%	50–80%	30–50%	<30%
<ul style="list-style-type: none"> Avoidance of risk factors SMOKING CESSATION Influenza vaccination 					
Short-acting bronchodilator if needed					
<ul style="list-style-type: none"> Add regular treatment with one or more long-acting bronchodilators, including tiotropium Pulmonary rehabilitation 					
Add regular treatment with inhaled corticosteroids if repeated exacerbations					
<ul style="list-style-type: none"> Long-term oxygen therapy (LTOT) if respiratory failure Consider surgical options 					
<p>Based on GOLD global strategy (2003) For clinical definitions of stages, refer to Figures 1.3 and 3.15</p>					

Oxygen Concentrators

Oxygen Concentrators

- Oxygen Concentrator is a device which draws oxygen from ambient air and supplies to a patients unlike other oxygen delivery system.
- Normally Oxygen is supplied @90% +/- 5% Purity and 1 LPM to 10 LPM.
- Running Cost is significantly low; The running cost is only Rs 2.5/Hr as compared to Oxygen Cylinder which is approximately Rs 20/Hr.
- A properly maintained oxygen concentrator will run for 3-4 years without hassle.

Oxygen Concentrators offer by Leader Healthcare

Brand Name: Airsep

Airsep is a USA based company and pioneer in Oxygen Concentrators. Currently we have 7 active models in India; 3 Portable and 4 Stationary.

Models	Flow Rate
Focus	2 LPM
FreeStyle	1-3 LPM
LifeStyle	1-5 LPM
Visionaire	1-5 LPM
NewLife Elite	1-5 LPM
NewLife Intensity 8	2-8 LPM
NewLife Intensity 10	2-10 LPM