**COPD**

- Chronic
- Obstructive
- Pulmonary
- Disease

**OBJECTIVES**

Following this presentation the participant should be able to demonstrate understanding of chronic lung disease by successful completion of the COPD “I.Q. Quiz” (7 or more correct answers).

Participant should learn:

- COPD definition
- Who is affected by COPD
- Common types of COPD
- Management of COPD
  - Preventative
  - Medications
  - Coping strategies

**COPD**

- COPD is a disease of the lungs. It is caused by blocking of the airways in the lungs, and it has no cure.
- Progresses slowly and worsens over time. Referred to as the Silent Disease. Clinical findings are completely absent in early disease.
- Symptoms range from being barely noticeable to incapacitating.
- By the time patient seeks medical advice – damage is done.
COPD

- Affects both men and women.
- Average person is 65 with long history of smoking. Can be diagnosed as young as 40.
- Results from smoking and/or occupational exposure.
- COPD is the 5th most common cause of death in North America.

Contributing Factors

- SMOKING----90% of COPD is related
- Air pollution
- Airway infection
- Familial factors
- Allergies
- Hereditary Factors (deficiency of alpha antitrysin)
Asthma is not usually considered as a form of COPD. “Pure” asthma symptoms can be reversed and COPD is permanent. Many asthmatics have a component of emphysema or chronic bronchitis to the asthma condition which then categorizes it as COPD.

COPD refers to a number of chronic lung disorders that obstruct the airways. The most common chronic lung disorders are:
- Chronic Bronchitis
- Emphysema

Normal versus COPD
Chronic Bronchitis

- Chronic bronchitis afflicts more individuals than emphysema.
-Bronchitis is an inflammation of the bronchi. This inflammation causes excessive production of mucus and swelling of the bronchial walls.
  - Airflow is obstructed
  - Airway narrows
  - Become partly clogged with mucus

Chronic Bronchitis

- With chronic bronchitis:
  - Mucus cannot be cleared.
  - Instead of helping to clean the lungs, it causes obstruction in the airways.
  - The mucus is thicker and more difficult to cough up.
  - This provides a means for bacteria to settle in the lower airways and increases the risk of infection.

Chronic Bronchitis

- Chronic bronchitis is caused mainly by cigarette smoke.
- It is characterized by:
  - Persistent cough
  - Production of mucus
  - The degree of breathlessness experienced depends on the degree of congestion of the airways and inflammation of the bronchial mucus membranes.
Emphysema

- Air sacs have been damaged.
- When the bronchi become irritated, the normal elasticity of the air sacs and the walls of the airways are destroyed.
- The walls of the tiny air sacs may even tear.

People with emphysema need to forcefully blow the air out in order to empty the lungs. Forcing the air out in this way puts pressure on the airways from the outside, compresses them and causes them to collapse. Excessive coughing may cause the airways to collapse as well.

As the stretching and tearing of the walls of the air sacs continues, the lungs may become enlarged and less efficient at moving air into the lungs and contaminants out of the lungs.
- Because the walls of the air sacs are destroyed, there is less surface area available for gas exchange. Damage to the air sacs in the lungs not only results in difficulty breathing, but the heart also has to work harder to circulate blood through the lungs. All these changes make less oxygen available to the body.
Emphysema

- Emphysema is characterized by:
  - Large barrel-shaped chest
  - Poor air pumping system
  - Shortness of breath (SOB).
- In advanced stages, every breath is difficult.
- A cough may or may not be present with emphysema.

Management of COPD

- Preventative Management
  - Stop smoking
  - Flu vaccination annually
  - Pneumonia vaccination every 5 years
  - Reduce exposure to environmental hazards
  - Reduce weight if necessary
  - Treat infection early
  - Learn proper use of respiratory devices
Management of COPD

**Medications**
- Bronchodilators
- Steroids
- Antibiotics
- Oxygen (low FIO2)

**Coping Strategies**
- Recognize warning signs
- Cough up phlegm
- Control Breathing
- Conserve energy
- Exercise regularly
- Manage stress
- Eat to feel better
- Comply with medications

COPD

QUIZ TIME
**COPD QUIZ**

1. T/F – COPD can be attributed to smoking, occupational disease, infection, heredity, allergies and aging.
2. T/F – COPD is 5th leading cause of death.
3. T/F – Affects more men than women – females on rise.
4. T/F – 12.6 million chronic bronchitis, 2 million emphysema.
5. T/F – SOB can occur at rest, at night, with eating, talking and walking.

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**COPD QUIZ Cont.**

2. T/F – Eating is equally as important as breathing.
3. T/F – Better to eat 6 small meals per day.
5. T/F – Aerobics and muscle strengthening are both beneficial.

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**COPD “I.Q. Quiz” Answers**

- False – COPD can be attributed to smoking, occupational disease, infection, heredity, allergies and aging.
- True – COPD is 5th leading cause of death.
- False – Affects more men than women – females on rise.
- False – 12.6 million chronic bronchitis, 2 million emphysema.
- False – SOB can occur at rest, at night, with eating, talking and walking.
COPD “I.Q. Quiz” Answers
(Continued)

• False – PFT critical in diagnosis of COPD – not x-ray.
• True – Eating is equally as important as breathing.
• False – Better to eat 6 small meals per day.
• False – Exercise improves oxygen utilization and quality of life.
• False – Aerobics and muscle strengthening are both beneficial.