

Chronic Obstructive Lung Disease (COLD)

Background:

- Chronic obstructive lung disease (COLD) is a disease characterized by the limitation of airflow to the lungs. (WC, 2001)
- It is also referred to as chronic obstructive pulmonary disease (COPD). (WC, 2001)
- There is no cure for COPD. (AAFP, 2001)
- “COLD is associated with a set of breathing-related symptoms: chronic cough, spitting/coughing mucus, breathlessness upon exertion, progression reduction in the ability to exhale” (WC, 2001)
- The most common cause of COPD is cigarette smoking. (NHLBI, 2006)
- Cigarette smoke accounts for over 80% of all COLD cases. (WC, 2001)
- Along with smoking, breathing in other types of lung irritants, such as pollution, or dust, may also contribute to COLD/COPD. (NHLBI, 2006)
- “COPD develops slowly, and it may be many years before you notice symptoms like feeling short of breath.” (NHLBI, 2006)
- COPD is usually diagnosed in middle-aged or older people. (NHLBI, 2006)
- Two major diseases in this category are *emphysema* and *chronic bronchitis*. (WC, 2001)
- With *emphysema*, the alveoli get irritated and stiff and are unable to hold air. (AAFP, 2001)
- With *chronic bronchitis*, the lining of the bronchial tubes becomes filled with mucus making it hard to breathe. (AAFP, 2001)
- In a healthy individual, the sacs and airways in the lungs are elastic and spring back to their original shape after filling with air. In patients with COLD their elasticity is gone therefore causing their lungs to become floppy and to always collapse.
- Over 14 million people in the U.S. have COLD/COPD. (AAFP, 2001)
- “Chronic obstructive lung disease is progressive, although when patients stop smoking the disease often levels off.” (WC, 2001)
- The best way to prevent COLD or to prevent it from getting worse is to stop smoking. (AAFP, 2001)
- Nearly everyone with COLD/COPD has daily limitations, such as walking up stairs, and carrying objects. Even breathing becomes hard work. (WC, 2001)
- Once a patient has COLD, any disease or infection involving the lungs can worsen their health and can sometimes even be fatal.
- Getting flu and pneumonia vaccines will help prevent patients from furthering their illness and straining their body more. (AAFP, 2001)
- “Some evidence indicates that having poor nutrition, particularly low dietary intake of antioxidant nutrients (vitamins A, C, and E and other food chemicals), could increase the risk for lung damage.” (WC, 2001)
- Chronic obstructive lung disease and chronic obstructive pulmonary disease are not contagious and you cannot catch either from someone else.

Statement of the Problem:

- Healthy People states that more than “10 percent of the population over the age of 65 is estimated to have chronic obstructive pulmonary disease.” Since 1980 the age in which people die from COPD has increased 30 percent. (Healthy People 2010)
- “From 1982 to 1984, the proportion of adults with COPD was 6.2 percent among whites and 3.2 percent among African Americans. In 1982, the age-adjusted COPD death rate for whites was 16.6 deaths per 1,000 population and 12.8 deaths per 1,000 for African Americans.” (Healthy People 2010)
- Death from chronic obstructive lung disease is more common in men than in woman, and has been found to increase with age. Up to age 55, men and woman both seem to have similar death rates, but after age 70, the rates double for men. (Healthy People 2010)
- It may be that women are more at risk when exposed to cigarette smoke, but women also experience more beneficial effects when quitting smoking in order to prolong the rate of lung function. (Healthy People 2010)
- Chronic obstructive lung disease can be hard to live with, and affects millions of lives every day. On average, 2.2 percent of adults 45 and older experienced limitations due to chronic lung and breathing problems in 1997. Because of this, Healthy People has an objective (24-9) to “reduce the proportion of adults whose activity is limited due to chronic lung and breathing problems.” (Healthy People 2010)
- In 1998 119.4 deaths occurred per 100,000 people over the age of 45. Healthy People has a goal to “reduce the number of deaths from chronic obstructive pulmonary disease among adults” to 60 deaths per 100,000 people. (Healthy People 2010)

Epidemiologic Picture of the Problem:

- “Chronic obstructive lung disease is responsible for more than 100,000 deaths in the U.S. each year, making it the fourth leading cause of death.” (WC, 2001)
- More than 12 million people are diagnosed with chronic obstructive pulmonary disease, and another 12 million are likely to have it without even knowing. (NHLBI)
- Most long-term smokers will eventually get some form of chronic obstructive lung disease in their lifetime.
- Most of the time patients with COLD/COPD are older or middle aged.
- “Older Caucasians are more susceptible to emphysema than their African Americans peers, but younger African American men are at higher risk than younger white men.” (WC, 2001)
- “In the developing world, indoor air quality is thought to play a larger role in the development and progression of COPD than it does in the United States.” (CDC)
- “In 2000, 119,000 deaths, 726,000 hospitalizations, and 1.5 million hospital emergency departments visits were caused by COPD.” (CDC)
- 8 million people were treated as hospital outpatients or by physicians for COPD in the year 2000. (CDC)
- “Data from a national health survey suggests that as many as 24 million Americans are affected [by COPD].” (CDC)

- “From 1980 to 2000, the COPD death rate for women grew much faster than the rate for men. For U.S. women, the rate rose from 20.1 deaths per 100,000 women to 56.7 deaths per 100,000 women over that 20-year span, while for men the rate grew from 73.0 deaths per 100,000 men to 82.6 deaths per 100,000 men.” (CDC)
- In 2000, women had 404,000 COPD related hospitalizations while men only had 322,000. (CDC)
- 2000 marked the first year that more women (59,936) were killed by COPD than men (59,118). (CDC)
- The increase in women’s COPD rates is most likely linked to the increase of smoking by women in relation to men since the 1940s. (CDC)
- “The decreases in rates of mild and moderate COPD in both men and women aged 25-54 in the past quarter century reflect the decrease in overall smoking rates in the United States since the 1960s.” (CDC)
- “Data from NHANES III estimate that approximately 24 million U.S. adults have evidence of impaired lung function, indicating that COPD is under diagnosed.” (CDC-MMWR, 2002)
- “COPD is a major cause of morbidity, mortality, and disability in the United States. Despite its ease of diagnosis, COPD remains an under diagnosed disease, chiefly in its milder and more treatable form.” (CDC-MMWR, 2002)

Solutions to the Problem:

Global Initiative for Chronic Obstructive Lung Disease (GOLD)

(<http://www.goldcopd.com/>)

GOLD was launched in 1997 partnership with the *National Heart, Lung, and Blood Institute*. The Global Initiative for Chronic Obstructive Lung Disease works with doctors and physicians around the world to help improve treatment for this awful disease. The members of GOLD have also set up programs to help raise awareness and prevent COPD. GOLD is working to improve the quality of life for individuals around the world who have chronic obstructive lung disease. They are also working to promote studies on COPD and why it is increasing, and the relationship it has with the environment.

National Lung Health Education Program (NLHEP)

(<http://www.nlhep.org/>)

The National Lung Health Education Program is a non-profit group that was founded in 1996 in order to increase awareness about chronic obstructive lung disease “among the public and health care professionals and to encourage the use of simple spirometry to make an early diagnosis and monitor ongoing treatment,” (NLHEP, 2002-2006). The National Lung Health Education Program is aimed towards patients especially, but also towards healthcare officials, physicians, medical specialists, and policy makers. They also reach out to government officials, etc., for support and grants.

American Lung Association

(<http://www.lungusa.org/site/apps/s/content.asp?c=dvLUK9O0E&b=34706&ct=67252>)

“ The mission of the American Lung Association is to prevent lung disease to promote lung health” (ALA, 2007). The American Lung Association is a voluntary health organization, and is the oldest in the United States. “Founded in 1904 to fight tuberculosis, the American Lung Association today fights lung disease in all its forms, with special emphasis on asthma, tobacco control and environmental health” (ALA, 2007). The American Lung Association accepts donations from the public along with grants. They have developed strategies and plans to help fight lung disease.

Internet Resources:

National Jewish Medical and Research Center

(<http://www.nationaljewish.org/disease-info/diseases/copd/about/symptoms.aspx>)

This site includes signs and symptoms of chronic obstructive lung disease and chronic obstructive pulmonary disease. It also includes early warning signs and when you should be worried and call your doctor. Lastly, it includes ways to help treat your symptoms and additional things that should be avoided.

American Thoracic Society

(<http://www.thoracic.org/sections/education/patient-education/patient-education-materials/patient-information-series/medicines-used-to-treat-copd.html>)

This site gives information to patients about medications that can be used to help treat chronic obstructive lung disease. The article mainly talks about two different kinds of medicine that help treat the disease, but both in different ways. This lets patients know that there's more than one option out there.

Palliative Care Policy Center

(<http://www.medicaring.org/educate/download/copdbookfinal.pdf>)

This link leads to a PDF file that contains information about how to take care of a friend or family member who may have a form of chronic obstructive lung disease. It gives tips and suggestions about the disease and how to cope and care for your loved one.

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Chronic Obstructive Lung Disease (COLD) [Handout]

What is it?

- Also known as Chronic Obstructive Pulmonary Disease (COPD)
- Causes the limitation of airflow to the lungs
- Develops over time
- Smoking is the biggest cause, along with breathing in other irritants such as pollution and dust.
- Emphysema and chronic bronchitis are two major diseases in this category.
- Serious, long-term disability
- There is no cure

How it affects your body:

- Emphysema is caused when the alveoli become irritated and stiff and are unable to hold air.
- Chronic bronchitis is caused when the lining of the bronchial tubes becomes lined with mucus making it hard to breathe.
- All types of chronic obstructive lung disease limit people with their daily life activities.

Set of Symptoms:

- Chronic cough
- Spitting/coughing mucus
- Loss of breath upon exertion
- Reduced ability to exhale

Treatments:

- The first step is being aware of your symptoms and seeking help from a doctor.
- Next, if the person diagnosed with a form of COLD/COPD is a smoker, then they should attempt to quit immediately.
- Medications:
 - Bronchodilators & Inhaled steroids- relaxes muscles around airways.
 - Pulmonary Rehabilitation-helps patients learn to exercise and manage their disease with physical activity and counseling. (NHLBI)
 - Surgery- in some severe cases of COLD/COPD doctors may recommend surgery to help improve airflow to the lungs.
 - Oxygen Treatment- in some cases doctors may suggest oxygen therapy.
- Medications and other forms of treatments cannot cure COLD, but they can help improve your quality of life.

Statistics:

- COLD is responsible for more than 100,000 deaths in the U.S. each year, making it the fourth leading cause of death.
- Cigarette smoke accounts for over 80% of all COLD cases.
- More than 12 million people are currently diagnosed with COLD, and another 12 million don't even know they have it.