

LEARNING ABOUT COPD

DISEASE MANAGEMENT BROCHURE Vol. 8, No. 2, 2008

ACCESS NURSING SERVICES



What is COPD ?

Chronic Obstructive Pulmonary Disease

COPD is a **chronic** disease, which means that it continues over a long period of time. And it's **obstructive**, because it blocks the passage of air, making it hard to breathe. COPD is a **pulmonary disease**, which means that it affects the lungs.

COPD is also a progressive and irreversible disease. COPD is a major cause of death and illness throughout the world. It is the 4th leading cause of death in the U.S. and the world.



COPD is made up of two similar conditions: **chronic bronchitis** and **emphysema**. Both of these lung conditions keep the lungs from working properly-and prevent a person from breathing normally.

Chronic Bronchitis

Chronic bronchitis is an inflammation inside the breathing tubes in the lungs. When these tubes get inflamed, air has a hard time passing through. A thick mucus is produced and coughed up.

Emphysema

Emphysema affects the tiny air sacs in the lungs. These sacs lose their elasticity-like an over-used rubber band. Stale air gets trapped in them, making it harder to breathe. This causes shortness of breath and a cough.

Causes of COPD

- Cigarette smoking
- Occupational exposure, chemical fumes and organic dusts –like grain, cotton, wood, metal and coal dust
- Air pollution for smokers
- History of childhood respiratory infection-like colds, pneumonia, and acute bronchitis
- Heredity (Alpha 1 antitrypsin, AAT)
- Poor living conditions

Famous People Who Have Died From smoking

- Andy Kaufman-actor(died at age 35 of lung cancer)
- Babe Ruth-baseball player (died at age 53 of nose/throat cancer)
- Desi Arnaz-actor on “ I Love Lucy” (died in 1986 of lung cancer)
- Humphrey Bogart-actor (died at age 57 of cancer of the esophagus)
- T.S Elliot-poet and writer (died in 1965 of emphysema)
- Walt Disney-animator (died at age 65 of lung cancer)

The Three Levels of COPD

Mild COPD

- Coughing and mucus
- There may be no other early signs of COPD.

Moderate COPD

- Shortness of breath after moderate exercise.
- Coughing happens more often and mucus production in-

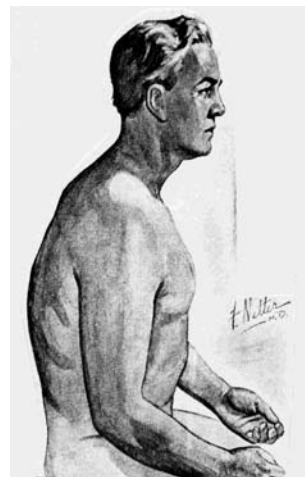
creases.

- Frequent respiratory infections like pneumonia.

Severe COPD

- Severe shortness of breath with even the smallest amount of exercise.
- Coughing continues to get worse and there is too much mucus.

- Respiratory infections get worse and tend to keep coming back.
- Chest may get larger-taking on the shape of a barrel.



Symptoms of COPD



There are three main symptoms of COPD:

1. Chronic cough that may produce mucus. This is usually the earliest symptom.
2. Shortness of breath or breathlessness. This usually develops later on and continues to get worse as COPD progresses.
3. Difficulty breathing in or out.

Other symptoms of COPD may include:

- Wheezing or noisy breathing
- Fatigue
- Weight loss
- Chest and stomach pain
- Depression and anxiety

- Enlarged chest (also called "barrel chest")
- Bluish color to skin, lips, and nails
- Affect nervous system—headache, sleeplessness, irritability, and problems with thinking and learning

What do Doctors Know About COPD?

Doctors look carefully for symptoms of COPD. After a complete medical exam, including questions about the client's health like "Are you a smoker?", the doctor will most likely order certain test:

- **Pulmonary Function Tests (PFT's)** which measure the amount of air the

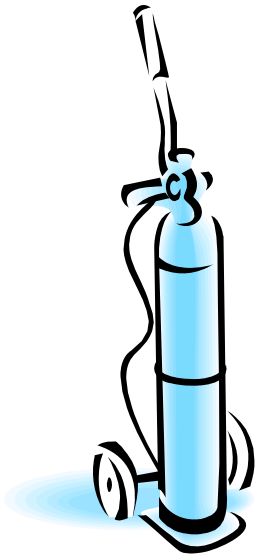
lungs can hold and how quickly air moves in and out of the lungs.

- A blood test called **Arterial Blood Gas (ABG's)** which measures how good the lungs are getting oxygen into the bloodstream.

- A **Pulse Oximetry** test also measures the amount of oxygen in the blood-but without using any needles. It uses light waves instead. The test is done by putting a special clip on a person's finger, earlobe or forehead.



- **Chest x-rays and CAT scans.** These tests show lung damage. They may not be helpful in the early stages of COPD.



Treatments for COPD

- There is no cure for COPD, but there are several ways to help manage the symptoms.
- Home oxygen therapy can improve the quality of life for people with advanced COPD- and may help them survive longer.
- Oxygen requires a doctor's prescription and is considered a medicine. Oxygen usually comes in a tank or humidifier and reaches the client through a face mask or nose tube.
- Since tanks can hold only a few hours worth of oxygen, a machine called a concentrator can be useful.
- There are portable liquid oxygen systems and tanks, too, which clients can carry over their shoulders or push in a cart.
- Lung reduction surgery and transplant surgery.
- Avoid environmental hazards like pollution, second-hand smoke, strong odors and weather changes.
- One of the most important steps is to stop smoking!
- Get rid of extra mucus include coughing and using special inhalers.

Medications used for COPD

- **Bronchodilators** help open the airways. Inhalers are the most common way for adults to get this medication.
- **Steroids** help reduce mucus production and inflammation of the airway walls. You might take steroid pills or use a steroid inhaler.
- **Expectorants** help loosen and get rid of mucus from the airways.
- **Antibiotics** help fight bacterial infections. They are usually given at the first sign of infection- when mucus changes from clear to yellow or green. There are many different types of antibiotics.
- **Diuretics** (sometimes called "water pills") help the body get rid of extra fluid.
- **Digitalis** strengthens the force of each heartbeat.

90% of people with smoking-related diseases began smoking when they were TEENAGERS.



Some Do's & Don'ts of Keeping Lungs Healthy

Do's

- Good Nutrition. It's very important to eat well-balanced meals.
- Weight control. Being overweight or underweight can be bad for your lungs.
- Regular exercise. Help you move around as much as possible- if allowed by the doctor.
- Regular check-ups. Keep your doctor's appointments so that any lung problems can be caught early.
- Flu shot. Getting a flu shot every year is especially important for people with lung disease.



Don'ts

- Don't smoke! Remember that smoking is 1) the main cause of COPD and lung cancer, 2) causes a higher risk of heart disease, and 3) is linked to other cancers- head, neck, bladder.
- Don't overdo it. Trying to do too much or exercise too hard can cause problems.
- Don't forget to take medications. Medications- including oxygen-work best when used a regular basis. Help your clients remember their medications.
- Don't ignore signs of illness. Report any changes in condition.

Tips for Helping Clients with COPD

Medication

- Watch your clients when they use their inhalers. It's important that they know how to use them properly. Let your supervisor know if you think they may be using them wrong.
- Ask to see your client's inhaler. If you notice "powder" around the hole where the medicine comes out, the inhaler needs to be cleaned.
- Even if they feel fine, remind your clients to take their medications as prescribed by their doctor-no more no less!
- Encourage your clients to carry their medications at all times- just in case they need them.

- Remind your clients not to share their medications with anyone.



Oxygen Safety

- It's very important not to smoke near oxygen. Encourage your clients and their family members not to smoke at all.
- Encourage your clients to change the nose tube (nasal cannulas) often.
- If your clients have portable oxygen units, make sure they know exactly how much oxygen they have so that they don't run short during an outing.

Activity/Energy

Conservation

- Encourage your clients to sit for as many activities as possible.
- Help your clients do their most important chores or activities first
- Try not to let your clients with COPD do too much in one day.
- When organizing your client's area, put the items your client uses most often within easy reach and keep them at waist or shoulder level.
- Slow down and encourage your clients not to do things too fast.
- Encourage your clients to do one activ-

ity at a time and to use slow, smooth movements.

- Encourage your clients not to bend or lift.

Weather Related

- Encourage your clients to take precautions like wearing a scarf over the nose and mouth to warm the air before breathing in.
- Encourage your clients to dress in layers. This helps maintain body heat.
- Remind your clients to avoid air pollution. Encourage them to remain indoors if the air



Recent studies have shown that lung cancer and COPD are closely related. People with COPD have a higher chance of getting lung cancer.

Exercise

- It's important for your clients to get some type of exercise-even if it's only a short, slow-paced walk.
- Be sure to remind your clients to take a rest period during exercise time.
- Never let your clients exercise on a full stomach!

General Safety

- Encourage your clients to get a flu shot every year!
- Remind your clients to be cautious about being with people who are sick with colds or the flu.
- Avoid wearing strong perfumes or using strong-smelling cleaning fluids around clients.

- Watch your clients for signs of breathlessness. If you see that they are short of breath, have them stop and rest in a comfortable position. Tell them to breathe in and blow out slowly through mouth.
- Encourage your clients and their family members not to smoke.

We are on the WEB.

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POST TEST

Please circle the best choice and then check your answers with educator. **You may submit this paper to your coordinator or send by mail to office.**

1. True or False

Cigarettes are the only cause of COPD.

2. True or False

Secondhand smoke can play a role in causing COPD.

3. True or False

COPD can be caused by a genetic disorder.

4. True or False

Quitting smoking is the most important way to prevent COPD.

5. True or False

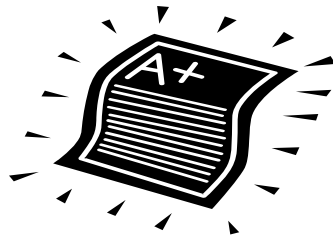
There is no real danger in smoking around an oxygen tank.

6. True or False

It is a good idea for COPD clients to get a flu shot every year.

7. COPD is a combination of two conditions, which are:

- A. Asthma and Strep Throat
- B. Emphysema and Chronic Bronchitis
- C. Pneumonia and Flu
- D. Cold and Migraine



8. What are the two earliest symptoms of COPD?

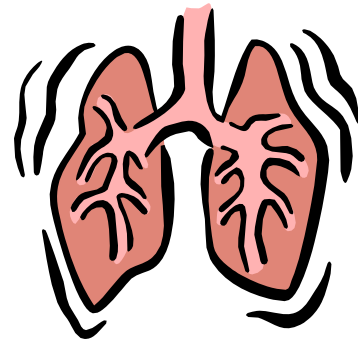
- A. A persistent cough and coughing up mucus
- B. Shortness of breath and tightness in the chest
- C. Wheezing and noisy breathing
- D. Depression and anxiety

9. Mr. Jones, a COPD client, sometimes forgets to remove the cap from his inhaler, you should:

- A. Let your supervisor know about it
- B. Not mention it to him at all
- C. Try not to worry about it
- D. Call his doctor

10. Your COPD client, Ms. Louise, has trouble with breathlessness during mealtime, you suggest that she:

- A. Rest before eating
- B. Eat slowly and chew foods well
- C. Eat several small meals instead of three big ones.
- D. All of the above



INSERVICE CREDIT: **1 HOUR**

SCORE: _____

EMPLOYEE NAME: _____

TITLE: _____

EDUCATOR SIGNATURE: _____

DATE: _____