

# Patients With Dyspnea

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## FACTS

The word “dyspnea” means difficulty in breathing. Many times the phrase “shortness of breath” is used to mean dyspnea. A person who is short of breath or is having trouble breathing is said to be dyspneic.

## CAUSES

There are certain times when healthy people have dyspnea. For example, if a person exercises or runs too strenuously, he or she may become dyspneic. Some people may become dyspneic because they are very frightened or anxious.

As a home health aide, you are more likely to see people who are dyspneic because of disease or illness. In most instances, it is related to heart disease or respiratory disease. Some patients may have both. Some of the more common illnesses that cause dyspnea include:

### **Congestive heart failure (CHF)**

CHF is a common condition in homecare patients. A person develops CHF because the heart does not pump blood the way it should. As a result, the heart does not empty well and the pressure inside the main pumping chambers rises. This creates a cycle of problems: the heart does not empty well, so it cannot fill as it should; which causes greater pressure in the smaller chambers of the heart; which causes greater pressure in the big veins that empty into the heart; and the pressure just keeps backing up until it affects the end of the system — the capillaries. Capillaries are the tiny blood vessels that allow for the exchange of oxygen, carbon dioxide, and fluids, as well as salt and other electrolytes between the tissues of the body and the blood. If the increased pressure slows this exchange down, then the tissues begin to swell. The swelling of tissues in the extremities is visible, especially at the ankles or feet. The swelling of tissues in the lungs is not visible. Instead of swelling you can touch and see, the swelling in the lungs makes it more difficult for the patient to breathe. CHF is almost always a chronic condition, but there is a great variety in how much dyspnea it may cause.

CHF is usually treated with medications, a low salt diet, and sometimes oxygen. The medications are usually special medicines to reduce the pressure, as well as diuretics (often called fluid pills) to help rid the blood vessels of the extra fluids by increasing the urine output.

### **Chronic obstructive pulmonary disease (COPD)**

COPD is the second leading cause of disability in the United States. There are many causes but the most common cause is inhaled irritants that cause the airways themselves to swell. One common irritant responsible for COPD is cigarette smoking, although there are others. Not everyone who has COPD has a history of smoking. The swelling of the airways obstructs the flow of air both into and out of the lungs. Mucus becomes trapped in the passageways, and the air sacs cannot do their work of exchanging with the capillaries in the lung. Sometimes the air sacs are destroyed and there are large air spaces in the lungs. The lower airways may collapse when the person exhales, trapping air in the lungs and leading to dyspnea. COPD is also a chronic disease.

COPD is treated differently depending upon the condition of the lungs and the cause of the obstruction. Many patients use inhalers or nebulizers and many of them take oxygen all the time. Most patients with COPD take a lot of

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medicines compared to other patients. Many are thin, because it takes a lot of energy for them to breathe and they are often tired because of the increased coughing and sputum.

## **Pneumonia**

Pneumonia is a lung infection and can be caused by several kinds of bacteria or viruses. The infection causes part of the lung to fill with mucus or other materials, and this reduces the exchange between the air sacs and the capillaries. Pneumonia is more likely than either CHF or COPD to cause pain in the chest. Pneumonia may take several weeks for recovery, but it is not a chronic disease.

The treatment for pneumonia depends upon the cause. Antibiotics are given for bacterial forms. Expectorants to loosen the secretions are often given, and rest and plenty of fluids are both important treatments. Some patients may need oxygen for awhile.

## **Pulmonary Embolism**

An embolus is a blood clot that has traveled through the bloodstream. A pulmonary embolus is a blood clot in one or more arteries of the lungs and usually got there from a clot in the deep veins of the legs or from the heart. The blood clot dislodges from the vein or the heart and travels through the arteries of the lungs until it lodges in a smaller artery. The embolus lodged in the artery keeps the blood from flowing to the capillaries, and this reduces the exchange between them and the air sacs. Patients may recover from pulmonary embolism, but the cause of the embolus itself must also be treated to prevent further clots.

Treatment for pulmonary embolism usually includes anticoagulant medications (often called "blood thinners"). If the clots are thought to have started in the veins of the legs, special elastic stockings are often used, and sometimes the patient will have surgery on the vena cava (the largest vein in the body) to keep future clots from getting through. Oxygen is often given during the early stages of pulmonary embolism.

## **Asthma**

Asthma is a lung disease in which the body "over-reacts" to something to which the patient is allergic, to stress, or even to exercise. The muscles of the airways contract and make it harder for air to pass into and out of the air sacs. The airways become swollen and increase their secretions and that makes it even harder for the air to flow. People with asthma may have periods of very normal life with no symptoms. However, when one of the triggers produces an asthma attack it is very serious and can lead to death if it does not respond to treatment. Asthma is not just a disease of children. It can develop for the first time in adults.

Treatment must be continued even though the patient is not having any symptoms. There are several oral medications that may be used and inhalers or nebulizers are common. Oxygen may be used for attacks. Most important to the treatment of asthma is avoiding anything known to trigger symptoms, and to stay away from cigarette smoke or other lung irritants.

## COMMON SYMPTOMS

Most patients with dyspnea, regardless of the cause, will have a certain process of symptoms. The symptoms may progress much more rapidly for some patients than for others. Your role as a home health aide is to know the

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progression of signs and symptoms and to call the supervisor if you observe them.

1. Increase in respiratory rate — dyspnea often begins with an increase in the breathing rate that the patient may not even notice
2. Tiredness or slight anxiety
3. Increase in heart rate
4. Shortness of breath during increased physical activity such as climbing the stairs
5. Dry cough
6. Awakening at night with shortness of breath that goes away after sitting up
7. Shortness of breath that occurs when lying down
8. Increasing shortness of breath when carrying on a normal conversation
9. Shortness of breath and difficulty breathing that is obvious to the patient
10. Congested cough
11. Cough productive of sputum that may be frothy, blood-tinged, yellowish, or greenish
12. Noisy respirations — the patient may feel the wheezing or the crackling
13. Changes in the color of the skin, especially the face and lips — pale, bluish, mottled, or reddened
14. Dizziness
15. Progressively increasing difficulty in breathing even at rest

## CARING FOR THE PATIENT WITH DYSPNEA:

Your assignment sheet may give you specific instructions in caring for the patient with dyspnea. Make certain that you check the assignment sheet at every visit, and that you follow the instructions carefully. While your role will be different with each individual patient, there are some things that are common in treating all patients with dyspnea.

### **Conserving energy**

Conserving energy means finding ways to do things that take the least amount of energy. It also means taking rest breaks as often as needed. The key components of energy conservation include:

1. Planning and pacing  
This means planning ahead. If there are several activities to be done, plan them so that there are rest periods in between. For example, it may be too taxing for the patient to take a bath immediately after eating. Likewise, if you are assigned to assist with ambulation, plan for the patient to rest before and after.
2. Using correct posture  
Breathing is more difficult if the patient is “slumped” down in a chair. One of the simplest ways to conserve energy is to use proper body alignment. Most patients with dyspnea find it more difficult to breathe when

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lying flat. If they have a hospital bed, elevate the head. If not, help them position with pillows.

### 3. Organizing the rooms

Help the patient organize the bedroom and living areas so that things are within easy reach. Pay attention to where frequently used items such as the phone, reading glasses, or water are placed. Put frequently used kitchen items on the counter or table rather than up on a high shelf.

### 4. Preparing for doing daily tasks.

Show the patient ways to do everyday tasks that save energy.

- a. When making the bed, do one entire side before doing the other. Sit down and rest if necessary before doing the second side. Consider using a comforter rather than several layers of linen.
- b. When showering, use a shower chair. Don't use excessively hot or cold water. Wrapping up in a very large towel makes drying off easier.
- c. When cooking, don't use menus that require a lot of stirring on the stove. Don't stand at the counter to cut vegetables, etc. Sit at a table instead. Slide pots instead of lifting them. And try to use lightweight dishes when possible.

### 5. Controlling breathing

The nurse may teach the patient special ways to control breathing. If the patient has breathing exercises, it is a good idea for you to know what the patient has been taught, so that you can note whether he or she is doing them properly.

## **Coping with shortness of breath**

Whenever patients become more short of breath, it is a sign that their bodies are not getting enough oxygen and nutrients. It is important for them to learn how to cope and what to do. You can assist patients by reminding them not to overdo. Pay careful attention to their breathing while you are there, especially if they increase activity. Encourage them to stop and rest whenever any activity makes them more short of breath.

## **Compliance with medications and treatments**

Not taking their medicines and not following their treatments are important reasons that some patients with dyspnea get worse.

### KEY POINT IN CARING FOR THE PATIENT WITH DYSPNEA:

- » Always review the assignment sheet before beginning cares.
- » Follow the assignment. If you are assigned to take the pulse and respirations, then call the supervisor when they are outside the guidelines on your assignment. If you are assigned to weigh the patient, make certain to do so at the same time each visit, with similar amounts of clothing on the patient, and on the same scale. Record the weight in your visit note, and call the supervisor when the assignment sheet says to do so.
- » Assist the patient in planning the cares. Make certain you allow for periods of rest between periods of activity. Help the patient learn to pace activities.

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- » If the patient is on oxygen, you should be taught what delivery system is used, the rate of flow, and when the patient should use it. NEVER adjust the flow rate of the oxygen. You will be taught how to maintain the equipment if that is your responsibility.
- » Observe for signs of increasing shortness of breath. Have the patient sit down and rest anytime the dyspnea increases. If the patient becomes severely short of breath call the supervisor right away.
- » If you are assigned to assist with medications, carefully follow the instructions you are given.
- » Notify the supervisor if the patient is not compliant with taking his or her medications, oxygen, or treatments.
- » Learn the signs of increasing dyspnea and watch for them. Record on your visit note and notify the supervisor if you notice changes in the patient's breathing pattern or signs of increasing dyspnea.
- » Be organized yourself as a good example to the patient. Don't rush about in a flurry, and remain calm while caring for the patient with dyspnea.
- » Note on your visit report anything the patient may say about how easy or difficult his or her breathing seems to be. Know what to report to the supervisor.
- » When in doubt — report. If you observe something unusual and you are not certain whether to report it or not, be on the cautious side, and call the supervisor about your concerns.

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## CASE STUDY: A PATIENT WITH DYSPNEA

Elaine visits Mrs. Arrow three times a week. Mrs. Arrow has CHF and has been in the hospital many times in the past year. Elaine notices that the bed doesn't appear to have been slept in. When she asks, Mrs. Arrow says, "Well I had a little trouble breathing last night and I slept in the chair. But I'm all right now." Elaine weighs Mrs. Arrow, who weighs four pounds more than she did at Elaine's last visit. The assignment sheet says for Elaine to report to the supervisor if Mrs. Arrow gains more than three pounds. When Elaine writes down the weight, Mrs. Arrow says, "I had a big meal last night, and besides, my bowels didn't move this morning, so there is no need for you to call anyone."

While assisting with the bath, Elaine notices that Mrs. Arrow seems to be breathing even faster than she usually does. She suggests that Mrs. Arrow should rest before they do anything else, but Mrs. Arrow says, "Heck, never mind that, let's just get this all done."

Elaine is supposed to assist with Mrs. Arrow's medicines from a med box. When she brings the box to Mrs. Arrow, she mentions that the pills from yesterday are still in the box. Mrs. Arrow states that she didn't take them. "I wasn't feeling too good and those pills make me go to the bathroom all the time."

Elaine finishes her assignments and then leaves.

## THINK ABOUT IT

Elaine has reason to believe that Mrs. Arrow's CHF is worse today than before. How many things can you identify?

What are some of the things Elaine needs to record on her visit note? Is there anything she needs to report to the supervisor? If so, what?

What do you think might happen to Mrs. Arrow based on what she is doing and saying? Is there anything Elaine can do to prevent them?

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## OBJECTIVES

After completion of this program, the home health aide will be able to:

- » Define dyspnea
- » List three disease conditions that are likely to lead to dyspnea
- » Recognize three signs/symptoms of increasing dyspnea, and
- » State two measures for reducing energy expenditure.

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## OVERVIEW

Heart failure, pneumonia, and chronic obstructive pulmonary disease comprise three of the top ten most common primary diagnoses for Medicare homecare. In fact, heart failure is often the second, and sometimes the most common diagnosis. All of the patients with these diagnoses are at much higher risk of dyspnea. Care pathways for managing patients with these diagnoses were among the first to be widely used.

All too often, care planning for patients with dyspnea pays far too little attention to the home health aide. Many of these patients require personal care assistance from home health aides because of their compromised breathing. Beyond that, the involvement of the home health aide may be limited to maintaining oxygen equipment, taking vital signs, and reporting any abnormalities to the nurse.

The very high prevalence of patients with dyspnea, coupled with an increased rate of re-hospitalization for these patients, mandates that stabilization or improvement in dyspnea should always be a part of a homecare agency's performance improvement activities. Recent establishment of improvement in dyspnea as a potential marker of quality in the OBQI (outcome-based quality improvement) reporting system provides even greater necessity to look at this issue.

Home health aides can be very valuable in achieving better outcomes for patients with dyspnea. The purpose of this in-service is to provide information to assist in achieving that goal.

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## CONTENT

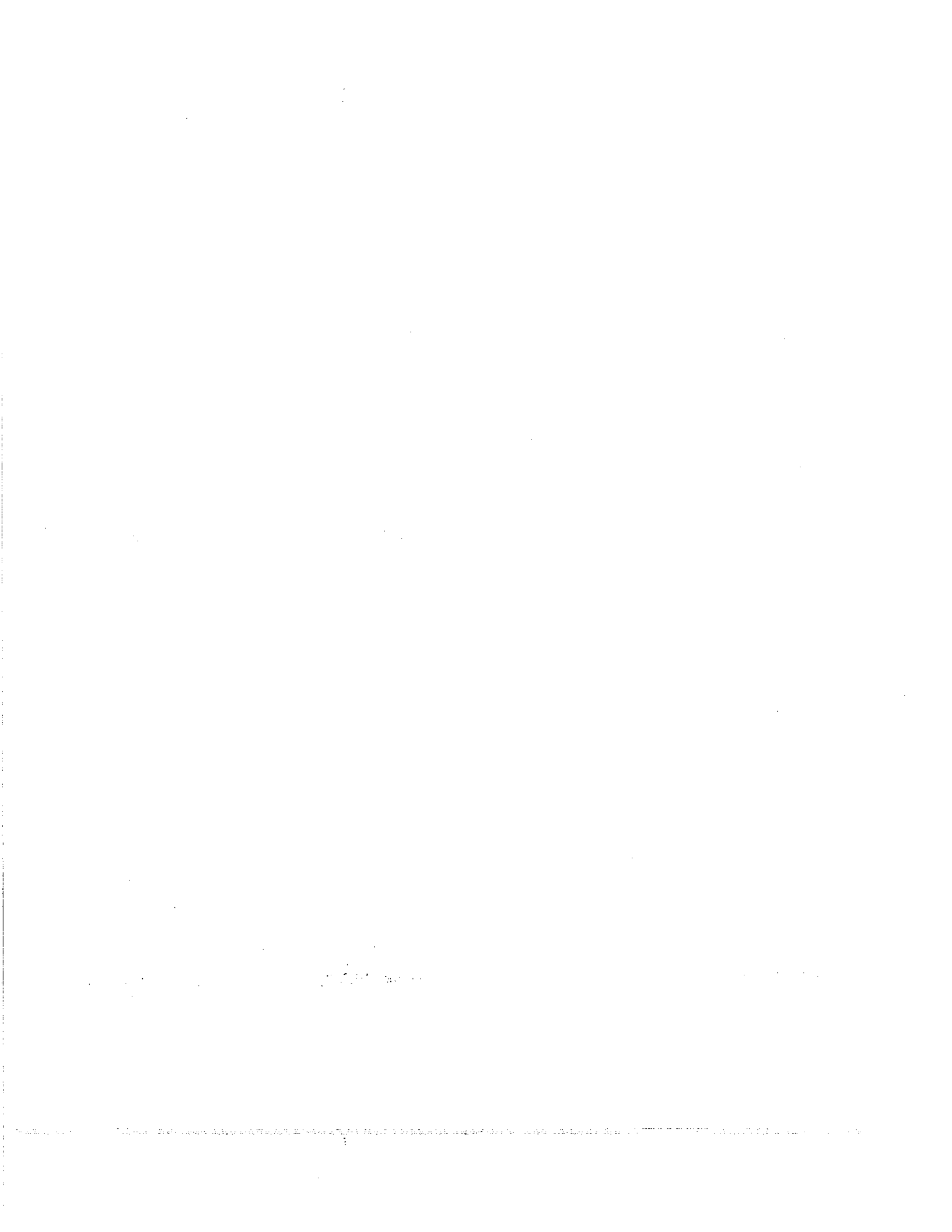
Read the Fact Sheet	15 minutes
Read the Case Study	10 minutes
Complete "Think About It"	10 minutes
Complete the Post-test	15 minutes
Feedback Session	10 minutes

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## SUPPLEMENTAL LEARNING ACTIVITIES

- » Arrange for a nurse who specializes in cardiopulmonary disease to present an additional in-service on care of these patients. Provide copies of breathing exercises to participants.
- » Obtain diagrams and definitions of the respiratory system from the American Lung Association. Distribute and discuss with participants. Obtain information from [http://www.lungusa.org/learn/resp\\_sys.html](http://www.lungusa.org/learn/resp_sys.html).
- » Arrange for a medical equipment supplier to present an additional in-service on different types of oxygen

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DIRECTIONS: READ EACH QUESTION CAREFULLY. THEN, DETERMINE THE BEST ANSWER. CHECK THE CORRESPONDING BOX ON YOUR ANSWER SHEET. DO NOT WRITE ON THIS POST-TEST.

1. Which of the following is not true about congestive heart failure (CHF)?
  - a. CHF develops because the heart cannot pump blood the way it should.
  - b. CHF can cause dyspnea.
  - c. CHF is rarely seen in homecare patients.
  - d. CHF is usually a chronic disease condition.
  
2. Which of the following is the best definition of dyspnea?
  - a. It means difficulty in breathing
  - b. It means snoring while you breathe
  - c. It means waking up at night to urinate.
  - d. It means coughing up blood.
  
3. Which of the following is the most common cause of chronic obstructive pulmonary disease (COPD)?
  - a. Having frequent coughs and colds during childhood
  - b. Going out in the cold without a sweater or jacket
  - c. Drinking too much beer or wine
  - d. Inhaled irritants
  
4. Which of the following diseases/conditions is not likely to cause dyspnea?
  - a. Pneumonia
  - b. Asthma
  - c. Urinary tract infection
  - d. Pulmonary embolism
  
5. Which of the following may indicate increasing dyspnea?
  - a. Increasing respiratory and heart rates
  - b. Shortness of breath with activity
  - c. Cough
  - d. All of the above
  
6. Which of the following would not be considered energy conserving?
  - a. Pacing activities
  - b. Eating faster than usual
  - c. Using correct posture
  - d. Having things in easy reach

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POSTTEST, PAGE 2

7. Which of the following is true about patients with dyspnea?
  - a. They all have congestive heart failure.
  - b. They all need to conserve energy.
  - c. They wouldn't have dyspnea if they had never smoked cigarettes.
  - d. They will never improve.
  
8. When a patient becomes more dyspneic, you should immediately increase the flow of his or her oxygen.
  - a. True
  - b. False
  
9. Which of the following statements is true about caring for the patient with dyspnea?
  - a. Encourage patients to push themselves to work harder.
  - b. Do not report increased difficulty breathing if the patient asks you not to.
  - c. Plan your assignments so that the patient can rest in between activities.
  - d. All patients with dyspnea will be on oxygen.
  
10. Which of the following is not likely to be a sign of dyspnea?
  - a. Having trouble breathing well when lying flat
  - b. Having a dry cough
  - c. Having an increased appetite
  - d. Having pale, reddened, or bluish skin color

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NAME \_\_\_\_\_

DATE \_\_\_\_\_

**DIRECTIONS:** READ EACH QUESTION IN THE POST-TEST CAREFULLY. THEN, DETERMINE THE BEST ANSWER. CHECK THE CORRESPONDING BOX ON THIS ANSWER SHEET. DO NOT WRITE ON THE POST-TEST.

## MULTIPLE CHOICE ANSWER SHEET

- |     |                            |                            |                            |                            |
|-----|----------------------------|----------------------------|----------------------------|----------------------------|
| 1.  | <input type="checkbox"/> a | <input type="checkbox"/> b | <input type="checkbox"/> c | <input type="checkbox"/> d |
| 2.  | <input type="checkbox"/> a | <input type="checkbox"/> b | <input type="checkbox"/> c | <input type="checkbox"/> d |
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| 8.  | <input type="checkbox"/> a | <input type="checkbox"/> b |                            |                            |
| 9.  | <input type="checkbox"/> a | <input type="checkbox"/> b | <input type="checkbox"/> c | <input type="checkbox"/> d |
| 10. | <input type="checkbox"/> a | <input type="checkbox"/> b | <input type="checkbox"/> c | <input type="checkbox"/> d |

INSTRUCTOR'S COMMENTS/SIGNATURE

Signature \_\_\_\_\_

RN \_\_\_\_\_

Date \_\_\_\_\_

