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Pneumonia is an infection that inflames the air sacs in one or both lungs. The air sacs may fill with fluid or pus (often called purulent material), causing a cough with phlegm or pus, fever, chills and difficulty breathing. A variety of organisms, including bacteria, viruses and fungi, can cause pneumonia.

Pneumonia can range in seriousness from mild to life-threatening. It is most serious for infants, young children, people older than 65 and people with health problems or weakened immune systems.

Most pneumonia occurs when a breakdown in the body's natural defenses allows germs to invade and multiply within the lungs. To destroy the attacking organisms, white blood cells rapidly accumulate. Along with bacteria and fungi, they fill the air sacs within the lungs – called alveoli. Breathing may be labored. A classic sign of bacterial pneumonia is a cough that produces thick, blood-tinged or yellowish-greenish sputum with pus.

Many germs can cause pneumonia. The most common are bacteria and viruses in the air we breathe. The body usually prevents these germs from infecting the lungs. But sometimes these germs can overpower the immune system, even if a person's health is generally good.

Source: http://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/dxc-20204678 (Accessed 9.12.16)

Types of Pneumonia

Community-acquired pneumonia

Community-acquired pneumonia is the most common type of pneumonia. It occurs outside of hospitals or other health care facilities. It may be caused by:

- Bacteria: the most common cause of bacterial pneumonia in the United States is Streptococcus pneumoniae. This type of pneumonia can occur on its own or after you've had a cold or the flu. It may affect one part (called a lobe) of the lung, a condition called lobar pneumonia.
- Bacteria-like organisms: Mycoplasma pneumoniae also can cause pneumonia. It typically produces milder symptoms than other types of pneumonia. Walking pneumonia is an informal name given to this type of pneumonia, which typically isn't severe enough to require bed rest.
- Fungi: this type of pneumonia is most common in people with chronic health
 problems or weakened immune systems, and in people who have inhaled large
 amounts of the organisms. The fungi that cause it can be found in soil or bird
 droppings and vary depending upon geographic location.
- Viruses: viruses that cause colds and the flu can also cause pneumonia. Viruses are the most common cause of pneumonia in children younger than five years old. Viral pneumonia is usually mild, but in some cases it can be very serious.



Hospital-acquired pneumonia

People can develop pneumonia while being treated at a hospital for another illness. Hospital-acquired pneumonia can be serious because the bacteria causing it may be more resistant to antibiotics. Also, the people who develop hospital-acquired pneumonia may be already sick and have weakened immune systems. People who are on breathing machines (ventilators), often used in intensive care units, are at a higher risk of contracting this type of pneumonia.

Health care-acquired pneumonia

Health care-acquired pneumonia is a bacterial infection that occurs in people who live in long-term care facilities or receive care in outpatient clinics, including kidney dialysis centers. Like hospital-acquired pneumonia, health care-acquired pneumonia can be caused by bacteria that are more resistant to antibiotics.

Aspiration pneumonia

Aspiration pneumonia occurs when food, drink, vomit or saliva is inhaled into the lungs. Aspiration is more likely if something disturbs the normal gag reflex, such as a brain injury, swallowing problem or excessive use of alcohol or drugs.

Source: http://www.mayoclinic.org/diseases-conditions/pneumonia/symptoms-causes/dxc-20204678 (Accessed 9.12.16)

Common symptoms of Pneumonia

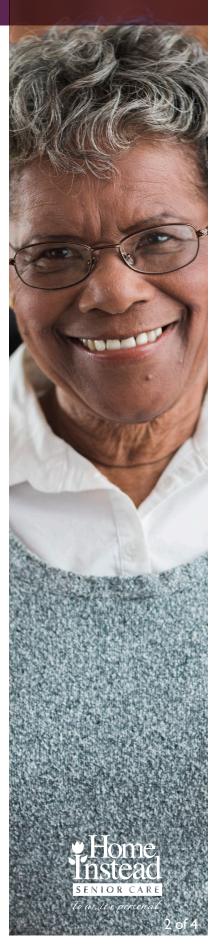
- Chest pain when you breathe or cough
- Confusion or changes in mental awareness (in adults 65 and older)
- Cough, which may produce phlegm
- Fatigue
- Fever, sweating and shaking chills
- Lower than normal body temperature (in adults older than 65 and people with weak immune systems)
- Nausea, vomiting or diarrhea
- Shortness of breath

Complications of Pneumonia

Even with treatment, some people with pneumonia, especially those in high-risk groups, may experience complications, including:

- Bacteria in the bloodstream (bacteremia) Bacteria that enter the bloodstream from the lungs can spread the infection to other organs, potentially causing organ failure.
- **Difficulty breathing** If the pneumonia is severe or the client has a chronic underlying lung diseases, they may have trouble breathing in enough oxygen. The

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client may need to be hospitalized and use a breathing machine (ventilator) while the lung heals.

- Fluid accumulation around the lungs (pleural effusion) Pneumonia may cause fluid to build up in the thin space between layers of tissue that line the lungs and chest cavity (pleura). If the fluid becomes infected, you may need to have it drained through a chest tube or removed with surgery.
- Lung abscess An abscess occurs if pus forms in a cavity in the lung. An abscess is usually treated with antibiotics. Sometimes, surgery or drainage with a long needle or tube placed into the abscess is needed to remove the pus.

Source: http://www.care.com/senior-care-caring-for-seniors-with-pneumonia-and-the-flu-p1143-q317308. html#What can I do to prevent my parent's flu from turning into pneumonia? (Accessed 6.21.16)

Treatment for Pneumonia

Treatment for pneumonia involves curing the infection and preventing complications. People who have community-acquired pneumonia usually can be treated at home with medication. Although, most symptoms ease in a few days or weeks, the feeling of tiredness can persist for a month or more.

Specific treatments depend on the type and severity of the pneumonia, the person's age and their overall health. Treatment options include:

- Antibiotics: are used to treat bacterial pneumonia. It may take time to identify the
 type of bacteria causing the pneumonia and the best antibiotic to treat it. If the
 symptoms don't improve, the doctor may recommend a different antibiotic.
- Cough medicine: may be used to calm a cough to allow the individual to rest.
 Because coughing helps loosen and move fluid from the lungs, it's encourage to not eliminate the cough completely.
- Fever reducers/pain relievers: may be needed for fever and discomfort. These include medicines such as aspirin, ibuprofen (Advil, Motrin IB, etc.) and acetaminophen (Tylenol, etc.).

A client may be hospitalized if:

- They are older than 65
- They are confused about time, people or places
- Their kidney function has declined
- Their systolic blood pressure is below 90 millimeters of mercury (mm Hg) or diastolic blood pressure is 60 mm Hg or above
- Their breathing is rapid (30 breaths or more a minute)
- They need breathing assistance
- Their temperature is lower than normal
- Their heart rate is lower than 50 or higher than 100

Source: http://www.mayoclinic.org/diseases-conditions/pneumonia/diagnosis-treatment/treatment/txc-20204734 (Accessed 8/2/16)

Role of a CAREGiverSM

- Follow the physician's orders and recommendations for treatment and physical activity
- Promote regular hand washing
- Encourage the client to get plenty of rest
- Plan and prepare well-balanced meals
- Help the client avoid others who have colds, flus or other respiratory infections
- Monitor the client's symptoms and document if they have gotten better or worse
- Recognize, report and record. Be the eyes and ears for the client. Report any changes or concerns to the franchise office as soon as possible.

Call the franchise office immediately if the client:

- Experiences chest pain that is increasing in intensity
- Has trouble breathing
- Coughs up large amounts of blood
- Feels like he may faint when sitting or standing up
- Has a fever with shaking chills
- Vomits

Source: http://www.mayoclinic.org/diseases-conditions/pneumonia/home/ovc-20204676 (Accessed 6.21.16)

Call the franchise office immediately if you recognize changes in the client or if the symptoms have gotten worse.

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