

# Biology



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Running Head: PNEUMONIA Pneumonia An Essay About a Disorder Affecting the Human Respiratory System (Your School or Organization) Pneumonia

The respiratory system is a series of organs designed to facilitate the exchange of gases, primarily oxygen and carbon dioxide, between red blood cells in the circulatory system and the outside environment (Thomson Gale, 2006). Pneumonia is one of the common diseases affecting the respiratory system. Pneumonia is an infection of the alveoli. Tissue fluids accumulate in the alveoli reducing the surface area exposed to air. If enough alveoli are affected, the patient may need supplemental oxygen (Kimball, 2007). Below is an illustration of how pneumonia affects the respiratory system.

According to The American Lung Association (2007) pneumonia is a serious infection and/or inflammation of the lungs. The air sacs in the lungs fill with pus and other liquid. Oxygen has trouble reaching the blood. If there is too little oxygen in the blood, the body cells cant work properly. Because of this and spreading infection through the body pneumonia can cause death.

Different causes of pneumonia manifest different signs and symptoms. In patients with pneumonia caused by bacteria (*streptococcus pneumoniae*), the temperature may rise as high as 105° F. The patient sweats profusely, and breathing and pulse rate increase rapidly. Lips and nailbeds may have a bluish color due to lack of oxygen in the blood. A patients mental state may be confused or delirious. If caused by a virus (influenza), there are fever, dry cough, headache, muscle pain, and weakness. Within 12 to 36 hours, there is increasing breathlessness; the cough becomes worse and produces a small amount of mucus. There is a high fever and there may be blueness of the lips. In mycoplasma (are the smallest free-living agents of disease in humankind, unclassified as to whether bacteria or viruses, but having

characteristics of both) pneumonia, there is a cough that tends to come in violent attacks, but produces only sparse whitish mucus. Chills and fever are early symptoms, and some patients experience nausea or vomiting. Patients may experience profound weakness that lasts for a long time. Other causes of pneumonia are fungi and other chemicals. Some types of pneumonia develop when the immune system weakened. Pneumonia can be acquired from community, hospital, and thru aspiration when foreign bodies enter the lungs (The Patient Education Institute, Inc., 2008).

According to MayoClinic. com (2008), pneumonia treatments vary, depending on the severity of symptoms and the type of pneumonia that the patient have. Bacterial and mycoplasma pneumonias are treated with antibiotics, viral pneumonia is treated generally the same as flu including rest and plenty of fluids, while fungal pneumonia is treated with antifungal medication. Hospital treatment includes IV (intravenous) antibiotics that are delivered thru a needle inserted into a vein and respiratory therapy that helps the patient breathe.

While still negative of the disease, it is wise to pay attention on the prevention of the disease thru following good hygiene habits such as washing the hands frequently with warm soapy water, using separate drinking glasses and eating utensils, and coughing or sneezing into a tissue. Stay healthy and boost the immune system by eating healthy foods, sleep well, avoid smoking, exercise, reduce stress, and not drinking excessive alcohol (The Patient Education Institute, Inc., 2008).

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