Week 3: Respiratory System

GE 345 Physiology/Kinesiology

Name

Respiratory Function

The respiratory system consists of a series of branching tubes, terminating in millions of little sacs in the lungs. Most of these branches act as passages for air to move in and out of those sacs, where gas transfer with the circulatory system takes place. Normally, the act of inspiration is caused by the active movement of the diaphragm, while expiration is passive, although during intense activities expiration is assisted by muscles of the abdomen and rib cage to allow breathing to keep up with gas exchange rates.

Pressure differentials within the lungs and the thoracic cavity keep the alveoli from collapsing. If the thoracic cavity is compromised, the lungs can collapse from exposure to atmospheric pressure.

Paraphernalia

None.

Today's Activity

You're in luck! I don't have the equipment necessary for an in-class activity, so there wont be one today. However, there are homework questions on the back of this sheet which are due next week.

Due Next Class

Turn in all pages of this activity at the next class. If you have any questions, don't hesitate to ask before you leave, or contact Tracey before the next class.

1. Describe in detail how gases are exchanged between the lungs and circulation include a description of how partial gas pressures influence the exchange, as well as blood circulation through the lungs.

2. Describe how the respiratory systems of individuals with the following conditions will differ from that of a normal, healthy person: asthmatic; extremely unfit person; smoker.