Biology level

Science, Biology



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This causes a decrease in lung pressure, (intrapulmonary pressure) which establishes the pressure gradient from the atmosphere (1 59 meg) to the alveoli (105 meg) which then results INSPIRATION. As oxygen is inhaled it enters the external mares (nostrils), from the external mares it moves into the nasal cavity which functions in moistening, filtering and warming of the air. After the nasal cavity the air moves into the internal mares which is located behind the soft pallet of the roof of the mouth.

Once the air moves through the internal mares it moves down into the pharynx which is the passageway forfoodand IR, it then moves down into the larynx which is the first part of the trachea. The larynx contains the epiglottis which is a cartilage flap that restricts food from going into the air pipe, and vice versa. As air moves down from the pharynx into the larynx the epiglottis closes the esophagi and opens the passageway for the air, to go through the glottis into the trachea. The trachea is lined with a mucous membrane which catches any debris that is left in the air.

The trachea then forms 2 primary bronchi, one for the left lung and one for the right lung. The primary bronchi attach he trachea to the lung. The primary bronchi then branch out into secondary bronchi which form the lobes of the lung. The left lung contains 2 secondary bronchi resulting in 2 lobes and the right lung contains 3 secondary bronchi which result in 3 lobes. The secondary bronchi then branch into tertiary bronchi, these then branch into smaller tubules called bronchioles.

The first part of the bronchioles is known as the terminal bronchioles, which then sub-divide into respiratory bronchioles. The respiratory bronchioles then

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sub-divide into alveolar ducts; around the recurrence of the alveolar ducts are numerous alveoli and alveolar sacs. Alveolar sacs consist of two types of alveoli which share a common opening. The two types of alveoli are type 1 and type 2 cells. Type 1 cells have a continuous lining of the alveolar wall, and type 2 cells are called septa cells and are found between type 1 cells, they are also fewer in number.

Type 1 alveolar cells are the main alveolar cells for gas exchange. Once 02 has reached the alveolus it can then diffuse into the capillaries. The process of diffusion is when pressures move from a higher pressure to a rower pressure through a pressure gradient. Oxygen is able to move from the atmosphere to the alveoli because it has a APP of McHugh and the Alveoli has a APP of McHugh. Once the oxygen moves from the atmosphere through the air passage into the alveoli it can then diffuse into the capillaries where APP is McHugh. 2 is able to move from the alveoli into the capillaries due to the process of diffusion (high pressure to low pressure through a pressure gradient). Once the 02 enters the capillaries it is then picked up by erythrocytes (RUB 's) where it attached to the hammed portion of the hemoglobin. APP in the blood is McHugh. Once the 02 is in the Orb's it can then diffuse into the tissues where the APP is 40 meg. As oxygen is being inspired, CO is being expired in the opposite direction. CO starts off in the tissues at a APPC of 45 meg, it then diffuses into the capillaries where its APPC is might.

Once the CO is in the capillaries it can then attach to RUB where the degenerated blood now has a APPC of might. Once in the red blood cells the

CO can then diffuse into the alveoli where APPC is might. Once the CO enters the alveoli, the respiratory muscles then relax. Which then leads to the decrease in the size of the thorax, increase in thoracic pressure, decrease in lung size, and increase in lung pressure, which established the pressure gradient from the alveoli to the atmosphere, which the results in EXPIRATION.

Once oxygen enters the capillaries from the alveoli it attaches to the hammed portion of the hemoglobin. A hemoglobin molecule consists of a protein called globing. Globing is made up of 4 polypeptide chain, each polypeptide chain contains a hammed portion, and at the center of each hammed portion is an iron molecule that oxygen can attach to. Therefore each hemoglobin molecule consists of 4 oxygen molecules. The oxygenated blood will then travel from the lungs, through the pulmonary veins, back into the left atrium of the heart.

The AS node will then send an impulse to the VA node. The AS node functions as a 'pacemaker' of the heart which sets its rhythm. The AS node makes sure that the ventricle and the atria do not contract at the same time. Once the impulse is sent to the VA node, it is then passed on to the VA bundles, also known as the Bundle of His. The VA bundles then branch in to 2 different ranches, the right and left, which then move down the septum into the pureeing fibers.

Forcing the blood through the bicuspid valve, into the left ventricle, which then open the aortic seminar valve, forcing the blood through the aorta, into the abdominal aorta, then into the common iliac artery, through the external

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iliac artery, to the femoral artery, which will then lead the blood to the deep artery of the thigh. The blood will then flow into the quadriceps of the muscle

where there is an open wound, and this is where the blood will begin to clot. Blood Clotting or Coagulation is a complex sequence of events (chemical reactions) that causes blood to go from liquid to gel.

Consistency of blood is due to the formation of a network of fibers consisting of fibrin protein and it involves more than a dozen chemicals called clotting factors. Clotting factions include Ca ions phosphoric associated with lipids and a mixture of lepidopterist and phosphoric released from damaged tissues. The blood clotting process involves three major stages. 1) formation of praiseworthiness, 2) formation of thrombi, 3) and the formation of fibrin. For this specific case there is an open wound in the quadriceps, which triggers the body to use the extrinsic clotting mechanism.

The extrinsic clotting mechanism is used when there is tissue damage, bleeding and when the body is in need of rapid clot formation, this occurs within a few seconds. The damaged tissue then releases a ' 'tissue factor' ' known as thermoplastic into the blood. The thermoplastic then activated a protein in the plasma called factor x, with the aid of calcium this then forms the enzyme known as praiseworthiness. Praiseworthiness is an enzyme that converts promoting to thrombi.

Promoting is an inactive enzyme in the plasma, with the help of praiseworthiness it can be converted to thrombi which is an activated enzyme. For thrombi to be active ca+ must be presence. Thrombi is an activated enzyme which converts forefinger to fibrin. Forefinger are soluble clotting proteins in plasma, this is then converted to fibrin with the help of thrombi. Fibrin are insoluble thread like proteins, which form across the wound, which form a net like structure that traps platelets and RUB 's which creates a plug across the wound, which results in a stoppage of bleeding.

Question 2: