

Fantastic voyage essay sample



**ASSIGN
BUSTER**

Welcome Aboard! Today we will commence together in a mini-sub and we will travel through the femoral vein and travel all the way to her lungs. This adventure will be awesome. Attention! An alert just came through. Bacteria have attack tis female lower lobe of her right lung and we shall report this attack and record all that we see. Let's continue. We are being injected into the femoral vein close to the groin. The femoral vein runs parallel with the femoral artery through the upper and pelvic region of the body. (Crafts, 1977).

It is consider one of the larger veins in the body, the femoral vein returns blood into the leg to the heart through the iliac vein. We will pass through the inguinal ligament that forms a band going from anterior superior iliac spine to the pubis ligament. The role of the inguinal ligament is to hold in place several of the tissues of the pelvis as they cross into the front of the leg, including muscles, nerves, and blood vessels. From the inguinal ligament we see the external iliac vein which is a part of the femoral vein, just above the inguinal ligament.

Beginning at the groin area, at the groin area the external iliac vein goes along the pelvic area. Then it intersects with the internal iliac vein. Internal iliac vein come from deep in the pelvic region and rise to the lower portion of the abdomen, where they join with the right and left external iliac veins and form the common iliac veins. These, in turn, merge to produce the inferior vena cava at the level of the fifth lumbar vertebra. (Inner body, 2012). We can already see the heart. The iliac veins are linked together to form inferior vena cava.

The function of the vena cava is to transfer blood that has been deoxygenated from the body back into the heart. These veins are essential components of the circulatory system, and each one is responsible for returning the blood from half of the body. Blood from the upper half travels through the superior vena cava, while blood from the lower half runs through the inferior vena cava. In other words the inferior vena cava is a large vein ascending through the abdomen and carries deoxygenated blood from the lower body to the heart. (Inner body, 2012). Any question so far.

Following the inferior vena cava we will travel to the right atrium of the heart. The reason of the right atrium of the heart is to receive deoxygenated blood from the body through the inferior vena cava and pump it into the right ventricle. When we are ready to leave the right atrium we will go into the right AV valve. The AV valve allows blood flow into the right ventricle. Before the blood goes into the right ventricle it has to go through the tricuspid valve. The tricuspid valve prevents the back flow of blood as it is pumped from the right atrium to the right ventricle.

Ok. There's the pulmonic valve. Let's go that way. The pulmonary arteries are unique, unlike most arteries which carry oxygenated blood to other parts of the body, the pulmonary arteries carry de-oxygenated blood to the lungs. After picking up oxygen, the oxygen rich blood is returned to the heart via the pulmonary veins. Ok going through the pulmonary trunk, the pulmonary trunk which divides to form the right and left pulmonary arteries. Let's go to the right through the right pulmonary artery and now into the smaller arteries down into the lower lobe of the right lung.

It has three lobes called the right upper lobe, right middle lobe and right lower lobe. You will also notice many tree like structures. These are called primary bronchi. In each lung, they branch into smaller or secondary bronchi whose walls are kept open by rings of cartilage so air can pass into the lung. The secondary bronchi subdivide into smaller and smaller tubes, which are known as the bronchioles. The bronchioles then divides into microscopic tubes called alveolar ducts which as you can see resemble the main stem of a bunch of grapes. (Wise Geek, 2012).

If you would look closely, the wall of the alveolus is made up of a single layer of cells and so are the walls of the capillaries that surround and lie in contact with them. If you would look at the trachea, the trachea branches off at the back of the throat. The function of the trachea is to open passage way through which air can reach the lungs from the outside. Some other functions that are related to the trachea is that it's lined by the typical respiratory mucosa which produces many mucus glands that's cover by the cilia.

If you would look up the top art of the trachea it forms the voice box or larynx, made up of vocal cords actually two flaps of cartilage, muscle, and membranous tissue that protrude into the windpipe. We can also see that thin flap of elastic cartilaginous tissue attached to the larynx, located at the opening of the windpipe which is called the epiglottis. The epiglottis serves as a flexible lid for the windpipe which closes only while swallowing, and remains upright at other times. It also prevents food particles and liquids from entering the larynx and trachea. When we go up we are to explore the nasal cavity.

The nares serve as the entryway to the nasal cavities, which open posteriorly into the nasopharynx via the choanae. If you would look at the wall is the nasal cavity there's the medial and lateral walls. The medial wall is the nasal septum. The lateral wall is hallmarked by three nasal conchae superior, middle, and inferior that project inferiorly from the wall. They divide the nasal cavity into four passages that have openings to the paranasal sinuses. The paranasal sinuses are air-filled cavities in the frontal, ethmoid, maxilla, and sphenoid bones. They're lined with a mucosal membrane and have small openings into the nasal cavity.