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Scientific Topics- Scientific Topics from Sermons- Lesson(280): The Lungs

Praise be to Allah, the Lord of Creations, and Peace and blessings be upon our prophet Muhammad, the faithful and the honest.

Oh, Allah, we know nothing but what You teach us. You are the All- Knower, the Wise. Oh Allah, teach us what is good for us, and benefit us from what You taught us, and increase our knowledge. Show us the righteous things as righteous and help us to do them, and show us the bad things as bad and help us to keep away from them.

O Allah our Lord, lead us out from the depths of darkness and illusion, unto the lights of erudition and knowledge, and from the muddy shallows of lusts unto the heavens of Your Vicinity.

Lungs: location and connections:

Among the great many marvelous Signs that bespeak Allah's Infinite Divine Greatness are our human lungs, which the Almighty Creator, Allah, Glory to Him, has placed in our chest.



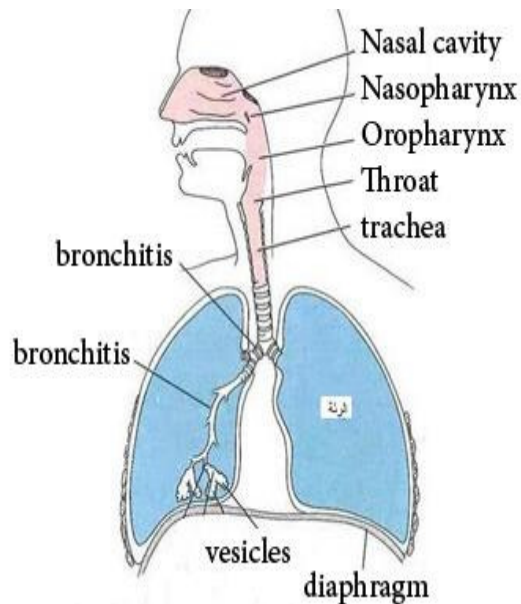
Chest image in female



Chest image in male

Chest images in male and female (X-rays photos)

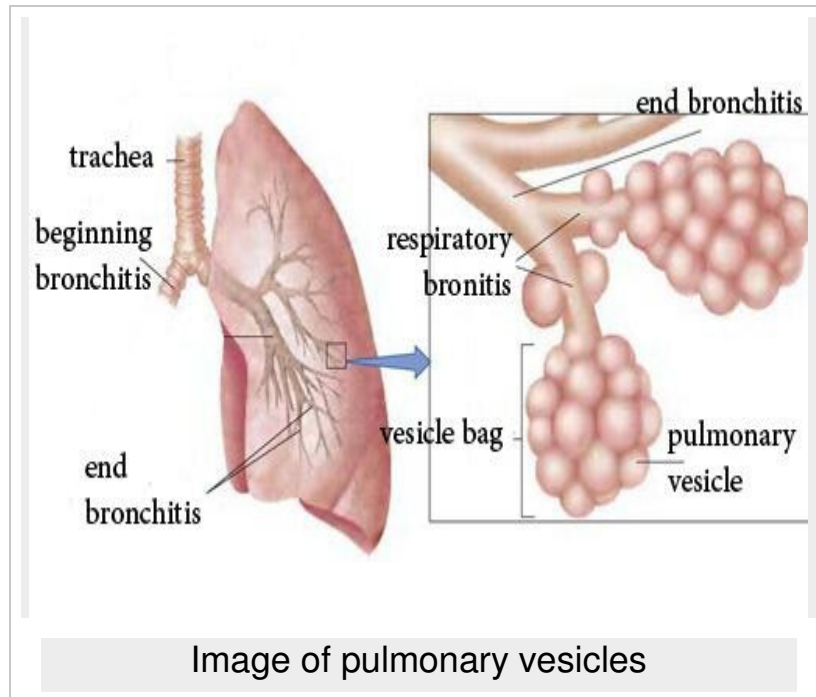
These lungs are connected with the outer environment with an air pipe, called “trachea”, which splits into 23 branches that lead to the roots, or pulmonary vesicles, which are the smallest units of the lungs.



The respiratory system in human body

Vesicles and trachea:

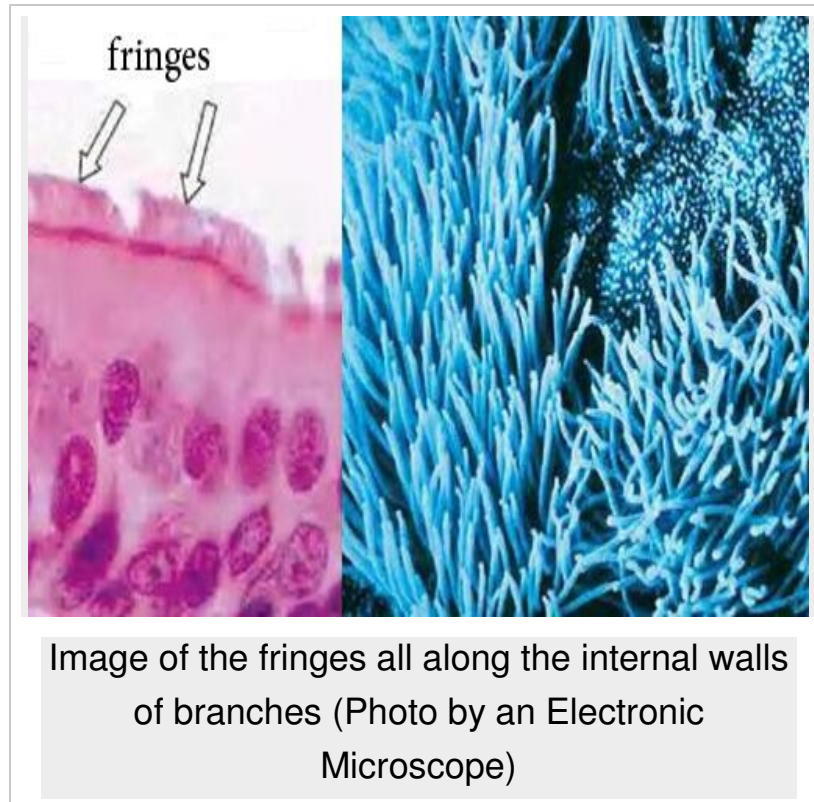
The diameter of a vesicle is only $\frac{1}{4}$ micron long, while the diameter of the trachea is 5 centimeters long. The total area of the pulmonary vesicles is 17 cubic metres. These vesicles receive the air coming through the trachea. The incredible thing is that the lungs have more 350,000,000 pulmonary vesicles and that the total area of these vesicles is 2,000 times greater than that of the trachea.



The air gets through the trachea into a great area of branches for oxidization, i.e. production of energy.

Fringes all along the internal wall of lung branches:

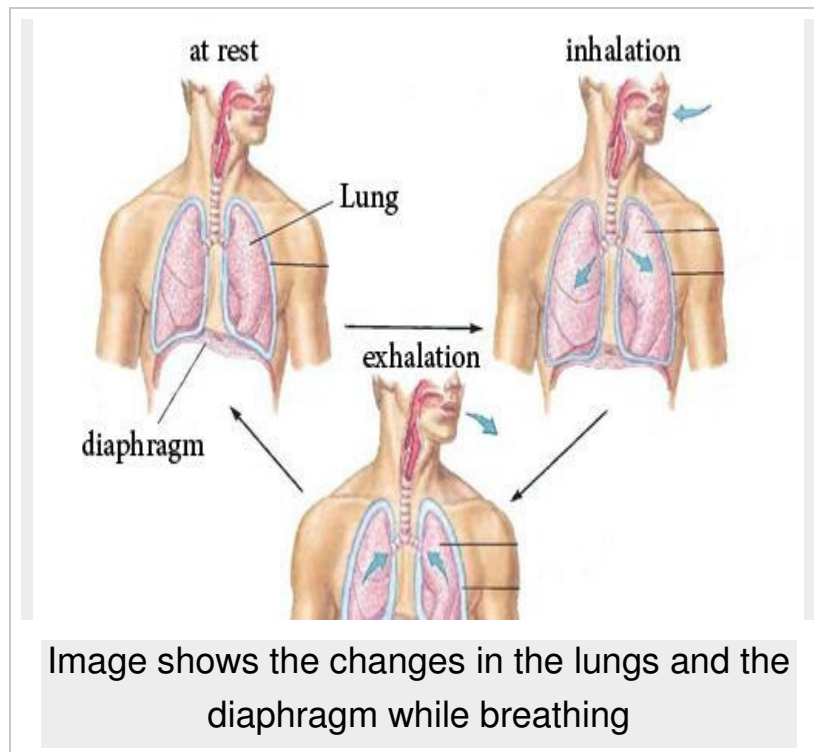
The remarkable thing is that there are lots of fringes all along the internal walls of these branches, which end in pulmonary vesicles. But what are these fringes? In fact, they are hairs that are only 6 microns long. The diameter of these fringes is $\frac{1}{20}$ micron. These fringes move upwards from 1,000 to 1,500 times per minute in order to expel all of the alien objects and to keep the pulmonary tracts pure and clean.



So far, medical doctors are unable to transplant the lungs, because so far, it is impossible to connect the nerves that are linked with the fringes. The strange thing is that these fringes are spread all over the trachea down to the vesicles; and they expel alien objects at a speed of 16 mm's per minute. If an alien object, such as a drop of water for example, gets into the trachea, it causes what people call "cough". So what is cough? It is a mechanism whereby the air is forced, violently and suddenly, out of the lungs at a speed of 900 km/h, which expels alien objects out of the trachea.

What about respiration?

More remarkably, respiration happens by a special chronic involuntary nervous instigation. If the Almighty Creator, Allah, Glory to Him, made respiration a voluntary operation, i.e. as part of our daily jobs, life would be unbearable if not impossible. This is because in this case, we would have to give up sleeping, because if we slept, we would get suffocated and killed. In fact, a very rare kind of illness, which afflicts this chronic involuntary nervous instigation center, prevents the patient from sleep.



The only cure for this strange disease is a kind of medicine, which is very expensive, and which has to be taken every hour. In other words, the patient cannot sleep for more than one continuous hour, as he/she has to get up every hour to take a dose of this medicine.

In short, our good health is one of Allah's Innumerable Divine Blessings, for which we should be most grateful!

Translation : Khaled Al-Athmeh

Edited by :