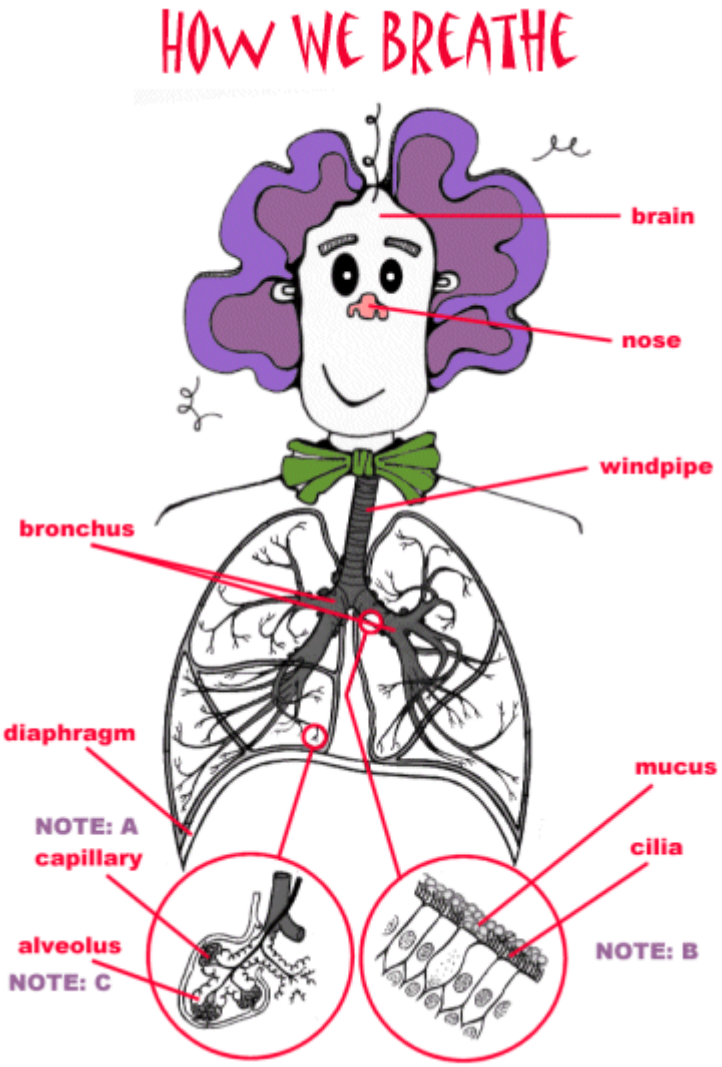
http://www.lung.ca/children/index_kids.html

The Anatomy Of Your Respiratory System

Your lungs are amazing machines that give your body all the oxygen it needs to live. Your lungs are made up of many parts, and they are all important for your lungs to work right. Click on the names of the parts you want to learn about in the image below:



NOTE A: Each airsac is covered with tiny blood vessels **(CAPILLARIES)**. Oxygen moves from air sacs into capillaries. Carbon dioxide moves in the opposite direction. Red blood cells transport these gases to and from all the cells in our body.

NOTE B: If too much mucus is made then the passage way gets smaller and air has a harder time to get through. This can happen in chronic bronchitis and asthma.

NOTE C: Air flows from bronchioles into millions of tiny air sacs (alveoli). Destruction of these by cigarette smoking causes emphysema.

When air enters your lungs, it goes through a maze of smaller and smaller tubes until it reaches tiny air sacs called **ALVEOLI.** The sacs look like bunches of grapes at the end of the bronchial tubes. The alveoli are where the oxygen from the air enters your blood, and the carbon dioxide from your body goes into the air. Alveoli are very tiny, but you have a lot of them in your lungs. In fact, you have 300,000,000 alveoli in each lung. That's six hundred million in total - and your body needs them all to get enough oxygen in your blood!

When the air you breathe in goes down your trachea, it comes to a fork in the road. These are the **BRONCHIAL TUBES (BRONCHUS).** One tube goes into your right lung, and the other goes into your left lung. The bronchial tubes go into your lungs and keep branching off into smaller and smaller tubes until the sacs at the end called alveoli are reached.Your bronchial tubes not only bring the air from your trachea to your alveoli, they also help clean your lungs. Your bronchial tubes are covered with **MUCUS**, which sticks to dirt and germs that get into your lungs.

Millions of tiny hairs called **CILIA** act like tiny brooms to sweep out the bad stuff caught in the mucus. Each cilium sweeps back and forth about ten times every second! That's 36,000 every hour, 24 hours a day! They do this to keep your lungs clean.

The **DIAPHRAGM** is a big sheet-like muscle that's at the bottom of your chest cavity. The diaphragm helps you get air in and out of your lungs by moving up and down. When your diaphragm moves down, you breathe in. When your diaphragm moves up, you breathe out! Try taking a really deep breath. Can you feel a stretching feeling in your stomach? That's your diaphragm moving down as you breathe in. Now try breathing out all the air in your lungs. Keep pushing out air until no more comes out. The tightness you feel below your chest is your diaphragm pushing up to get the air out! Without your diaphragm, your lungs couldn't fill up with air or push old air out!.

Your **MOUTH and NOSE** are very important, because they let air into your body. Did you know that your nose and mouth are connected? Your nose connects to the back of your mouth through two tubes. The air you breathe in goes from your mouth and nose down to your trachea and into your lungs. Your nose is really neat, because it is able to block some of the dirt and germs in the air. Your nose has hair in it that can block some of the stuff, but the most amazing part is the mucus that your nose makes. The dirt and germs in the air get stuck in the mucus in your nose, and they can't enter your lungs. When you blow your nose,

you're getting rid of all the bad germs and dirt that your nose stopped from getting into your body!

Your **WINDPIPE** is the tube that connects your mouth and nose to your lungs. You can also call it the **TRACHEA**. It is in the front of your neck, and is very hard with tough rings around it. Feel the front of your neck. Can you feel your trachea? Only air goes into your trachea. Food and drinks go down a different tube called the **esophagus**. The esophagus is behind your trachea, and you can't feel it from the outside of your neck. You have a special flap of skin that covers the trachea when you're eating or drinking. This little flap makes sure none of your food gets into your lungs. That's why you can't swallow and breathe at the same time! Sometimes the flap doesn't cover the trachea well enough, and stuff gets into your lungs. It's probably happened to you. You start coughing a lot because your lungs are trying to get the food out