



LET'S TALK ABOUT THE LUNGS

DID YOU KNOW?

The lungs are just one of the lifesaving organs needed for our bodies to function. Most people are born with two lungs, but a person can live a relatively normal life with only one lung. A living donor can even donate part of his or her own lung to help someone in need.

MATERIALS:

- 1 A clean stirring straw or other type of straw.
- 2 A timer or a person to time you.

BACKGROUND INFORMATION:

The lungs are located in the upper chest and have a surface area about the size of one side of a tennis court. They are pink and squishy, like a sponge. The right lung has three lobes, and the left is a bit smaller with two lobes, leaving room for the heart. We inhale oxygen through our mouth and nose, and then it goes down the trachea where alveoli sacs of air fill the lungs to help us breathe. We then exhale carbon dioxide.

Genetic diseases, such as cystic fibrosis, as well as birth defects can cause the lungs to function poorly. Rarely do doctors suggest a lung transplant for patients with severe asthma, but there have been some cases.

We cannot always determine why the lungs stop functioning, but one thing we can do to help protect them is to exercise and not smoke cigarettes. The chemicals in cigarette smoke damage the cells of the lungs, making it harder to breathe. Smoking can also cause cancer.

HOME ACTIVITY:

- 1 Use a timer or have another person time you.
- 2 Locate a small stirring straw or other type of straw. If using a larger straw, vertically fold it to make the openings on each end smaller.
- 3 Place one end of the straw in your mouth and practice using your lungs by sucking air in through the straw and blowing it back out. Do this while carefully walking back and forth for 30 seconds
- 4 Stop and see how you feel; you should feel okay.
- 5 Now repeat the activity, but this time while breathing in and out through the straw, pinch your nose and carefully walk back and forth for 30 seconds. If you feel light-headed, let go of your nose.
- 6 Stop and answer these questions:
 - When you held your nose, was it easier, or more difficult, to walk?
 - How does it feel when your lungs are not working well?
 - What would it be like to have problems breathing all the time?

Think about how many people with lung problems, both young and old, feel every day as they are waiting on a single- or double-lung transplant.

CHALLENGE:

On average, adolescents breathe around 12-16 times per minute when resting. Use a timer and check how many times you breathe when resting. Next, complete a 30-60 second exercise activity and see how many times you breathe per minute.

Lastly, complete the above straw activity again, then count your breaths per minute. Did your number of breaths increase? How did this activity make you feel about those waiting on a lifesaving lung transplant?