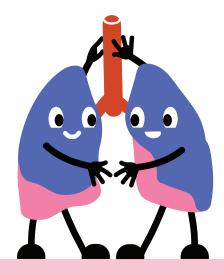
# **Activity at Home -Lung Capacity**

Activity takes approximately 15 minutes.





# Ever wondered how much your lungs can hold? In this experiment you can find out!

#### **Materials**

#### You will need:

- Empty milk bottle with cap 2LWater Large Bowl
- Permanent Marker

- Bendable Straw
- Measuring Cup

### Method

- 1. Fill the milk bottle all the way to the top with water and put the cap on. It's very important that there is no air in the bottle.
- 2. Fill the large bowl about halfway with water.
- 3. Turn the milk bottle upside down into the bowl of water so that the cap is under the water. You may need an older persons help for this step.
- 4. With the mouth of the bottle underwater take the cap off the bottle.
- 5. Carefully put one end of the straw inside the bottle keeping the mouth of the bottle underwater and hold onto the other end.
- 6. Take a deep breathe and slowly breathe into the straw.
- 7. Your breath will enter the milk bottle and push the water out.
- 8. Once you have finished breathing out mark the level on the milk jug with the permanent marker.
- 9. Lift the bottle out of the water allowing the rest of the water to drain out.
- 10. Fill the bottle up to the mark you made on your bottle.
- 11. Pour into your measuring cup to determine the volume of your lungs.



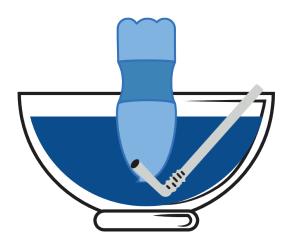
#### How it works

When you blow through the straw into the bottle you are displacing the water with air. The air in the bottle will allow you to visualise your lung capacity. This is just like when you step into a full bath and water splashes over the side. This is you body displacing the water.

Here at Telethon Kids Institute we are researching causes, treatments, and cures for various respiratory illnesses like asthma and CF. We have a machine called a lung box that also measures our patient's lung capacity just like in this experiment.

## Make it an experiment

Why not make it an experiment and see if your lung capacity changes after exercise like a minute of jumping jacks. Do not forget to make a hypothesis. HINT hypothesis is a guess you make before an experiment of what is going to happen.





#### Did you know

What do lungs and a tennis court have in common? Their size! It seems pretty impossible, but if the lungs were opened flat they would be so big that they would cover the size of a tennis court!

It's not something most people are aware of but, actually, the lungs are the only organs in the human body that are capable of floating on water.