Zedua Experiments

Title: What is Your Lung Volume?

What is lung volume?

The volume of air remaining in the lungs after a maximal exhalation.

ERV:(Expiratory Reserve Volume)

The maximal volume of air that can be exhaled from the end-expiratory position.

IRV:(Inspiratory Reverse Volume)

The maximal volume that can be inhaled from the end-inspiratory level.

Materials Required:

1. Clean plastic tubing
2. A large plastic bottle
3. Water
4. Kitchen sink or large water basin

Procedure:

1. Take a clean plastic tube.
2. Fill about 10 cm of water into your kitchen sink.
3. Fill the plastic bottle right upto the brim with water.
4. Cover the top of the bottle to stop the water escape when you turn it upside down.
5. Turn the bottle upside down. Place the top of the bottle under the water in the sink before removing your hand.
6. Push one end of the plastic tube into the bottle.
7. Take a big breath in.
8. Breathe out as much air as you can through the tube.
9. Measure the volume of air your lungs had in them.
10. Make sure you clean up the area after you finish.

What's happening?

When breathe out through the tube, the air from your lungs takes the place of the water in the bottle. If you made sure you took a big breath in and breathed out fully then the resulting volume of water you pushed out is equivalent to how much air your lungs could hold. Having a big air capacity in your lungs means you can distribute oxygen around your body at a faster rate. The air capacity of lungs (or VO2 max) increases naturally as children grow up. It can also be increased with regular exercise.

Source: pintrest