



Testing the Effect of Exercise on Lung Capacity



QUESTION: Does exercise affect how much air your lungs can hold?

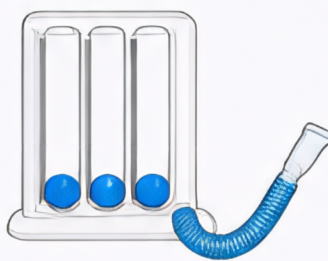
HYPOTHESIS:

If I exercise, then my lung capacity will _____

MATERIALS:

- Spirometer (incentive spirometer or simple spirometer)
- Stopwatch or timer
- Chair (for resting)
- Pen or pencil
- Data table (below)

OPTION 1: INCENTIVE SPIROMETER



OPTION 2: SIMPLE SPIROMETER (3-LITER BOTTLE)



PROCEDURE:

1. Sit in a chair and rest for 5 minutes. Breathe normally.
2. Take a deep breath in and seal your lips around the mouthpiece.
3. Exhale as slowly and fully as possible into the spirometer.
4. Record the lung capacity (the highest number or volume reached).
5. Repeat steps 2–4 two more times. Record each result.
6. Exercise for 5 minutes (examples: jumping jacks, running in place, or brisk marching).
7. Immediately after exercising, repeat steps 2–4 three times. Record each result.
8. Rest for 5 minutes. Repeat steps 2–4 three times. Record each result.

DATA TABLE:

TRIAL	BEFORE EXERCISE (After 5 min Rest)	AFTER EXERCISE (Immediately After)	AFTER REST (After 5 min Rest)
	Lung Capacity (mL or L)	Lung Capacity (mL or L)	Lung Capacity (mL or L)
1			
2			
3			
AVERAGE			

RESULTS:

What happened to your lung capacity after exercise?

CONCLUSION:

What can you conclude about the effect of exercise on lung capacity?



THINK MORE!

How might regular exercise over weeks or months change lung capacity?
What other factors might affect lung capacity?