

Activity-26: Expansion of chest in each breath

Aim:

How much does a person's chest expand during a deep breath? What is the normal chest width of a person during rest?

Procedure:

Ask your friend to take a cloth measuring tape. Ask her to circle it around your chest and measure the point with which the 0cm mark coincides. Now take a deep breath and ask her to measure it again. Repeat this 3 times and take an average of it.

Modifications: Repeat this experiment with people of different ages: 25, 35, 45, 55, 65 years of age, if possible. Go meet your relatives generously. Repeat the experiment with people of different heights and weights if possible. Now go for a rigorous run and immediately come back and ask your friend to repeat the experiment. You must be aware that after strenuous physical exercise, you breathe in air deeply. Now ask your friend to measure the expansion of your chest with each breath. Do not over breathe.

Observation:

Age: ; Weight: ; Height: ;

Person/male/female	Male-expansion per breath(cm)	Female-expansion per breath (cm)
Person-1		
Person-2		
Person-3		
...		
Average		

Questions:

Now try to think of the following questions:

Do you observe a difference in chest expansion in males and females of a particular height, weight and age?

So you think people who can run faster or longer have more chest expansion?

Do you think the chest expansion changes as a person ages or weigh more or less?

How can you increase your chest expansion?

What is the chest expansion when a resting person is breathing in air? How

does it and by how much does it change after physical exercise? What is the reason for the change?

Concepts covered:

We humans like many other animals have lungs. These are elastic air bags present in the chest cavity protected by the Rib cage. When the lungs expand, it created a low pressure thus causing air from the surrounding to rush in. This causes chest expansion.