

Course Name : Bachelor of Physical Education

Year : IInd

Paper Name : Kinesiology and Physiology of Exercise

Paper No. Ist

Lecture No. 21

Topic no. : Prac. - 4

Lecture Title : Efficiencies Tests : Vital capacity and Expiratory Force Tests - 2

Q1. What is Spirometry test ?

Ans - Spirometry is the most common lung function test. It measures how much and how quickly you can move air out of your lungs. You breathe into a mouthpiece attached to a machine called a spirometer. The machine records your results.

Q2. What is Gas Diffusion Tests ?

Ans - Gas diffusion tests measure the amount of oxygen and other gases that move through the lungs' air sacs (alveoli camera.gif) per minute. These tests let you know how well gases are being absorbed into your blood from your lungs.

Q3. What is Total Lung capacity (TLC).

Ans - Total lung capacity (TLC). This is the total amount of air your lungs can hold. For this test, you sit inside a small airtight room. You breathe through a mouthpiece while pressure and air flow measurements are collected.

Q4. What is Exercise stress tests.

Ans - Exercise stress tests look at how exercise affects your lungs. Spirometry readings are done after exercise and then again at rest.

Q5. What are the characteristics of acceptable spirometry efforts ?

Ans - Starts from full inflation. Shows minimal hesitation at the start of the forced expiration (extrapolated volume (EV) <5% of FVC or 0.15 L, whichever is larger) Shows an explosive start of the forced exhalation (time to peak flow no greater than 0.12 s) Shows no evidence of cough in the first second of forced exhalation. Meets one of three criteria that define a valid end-of-test: (1) smooth curvilinear rise of the volume-time tracing to a plateau of at least 1 second's duration; (2) if a test fails to exhibit an expiratory plateau, a forced expiratory time (FET) of 15 seconds; or (3) when the patient cannot or should not continue forced exhalation for valid medical reason