Lilia Sanchez

Laboratory 14- RESPITORY PHYSIOLOGY

NOVEMBER 14, 2023

PURPOSE: The Forced Vital Capacity (FVC) or Forced Expiratory Volume (FEVt)- To review/compare the vital capacity of me to women

PROCEDURE:

1. The Morgan ComPAS computer program has already calculated and factored in the BTPS (Body Temperature Pressure Saturation) correction factor for the spirometer temperature.

   Ex.: spirometer temperature = 25◦C

   BTPS correction factor = 1.075

   454 ml x 1.075 = 488.05 ml (rounded off to 488 ml)

2. Fully insert the Pneumotrac filter/mouthpiece you purchased at the bookstore. If you have difficulty keeping air from leaking through your nose, you may need to wear a nose clip, as air leakage will result in inaccurate results.

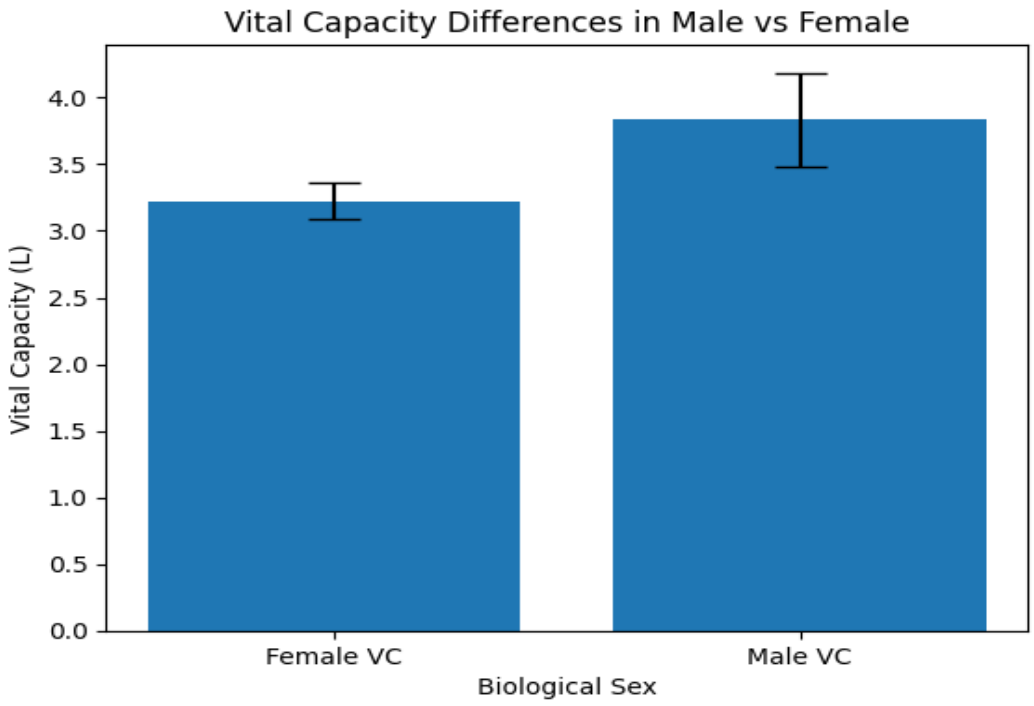
3. Be sure the correct student information is loaded up before you start the SVC (slow vital capacity) test.

4. After starting the SVC test, follow the verbal instructions of your instructor: begin with your mouth off the mouthpiece so the pneumotach can equilibrate; then get a good seal with your lips and begin normal quiet (tidal) breathing.

5. Watch the screen to be sure you are showing stable tidal breathing; the moving line should be around a half liter and NOT drifting up or down. (NOTE: speed or rate of expiration is not important for slow vital capacity 14-A.)

6. After stable tidal breathing, you will be instructed to take the deepest breath in as you can, then blow it all out, and finally return to normal tidal breathing. Your instructor will print out your SVC Volume Time Curve. This will be a part of your 14-A results. Be sure to follow the Lab 14 Data Management Instructions for GLR-14.

RESULTS:



Lilia Sanchez

Laboratory 14- RESPITORY PHYSIOLOGY

NOVEMBER 14, 2023

DISCUSSION:

There were 6 men and 3 women tested for VC. In review of the results, the vital capacity means for female vs male was 3.2/3.7 (L) with a standard error means of .50 to 1 (L). There seemed to be a higher quantifiable variation in men vs women. The normal FVC range for an adult is 3.0-5.0 (L). The results confirmed that all participants were within a normal average capacity. Although it is also confirming that men have a higher vital capacity in comparison to women.

CONCLUSION:

Testing for the measurement of lung volume capacity, by way of spirometry, is a method of acknowledging the criticalness of maintaining proper cellular respiration and oxidation of nutrient molecules. Although men and women may range in vital capacity, the effects of the process continue to provide the same benefits/results. In conclusion, in this study, all participants have shown to have fallen within the average capacity and show slight variation from men to women.