Laboratory 11 – Cardiovascular Measurement

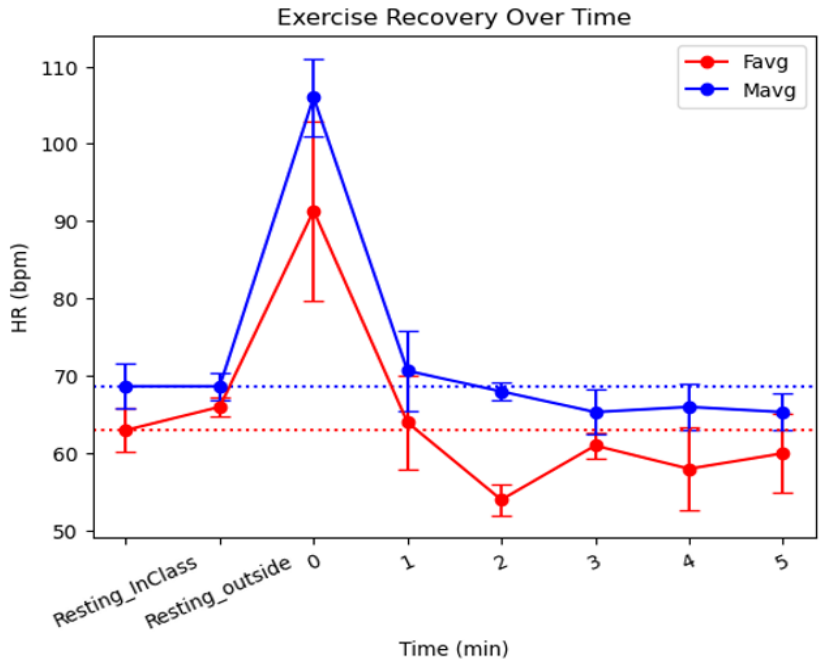
Purpose:

We will be testing the Cardiovascular Measurment with an EKG, which reflects the general condition of a person. We will also be measuring the effects of postural change and exercise on these cardiovascular parameters using several different types of equipment. A method of determining the physical fitness of an individual will be demonstrated.

Procedure:

1. Select three students who exercise regularly and threestudents who do not. Each student will take his/her resting pulse rate for one minute and record this value.
2. Each student will then run the track twice at a fast but comfortable pace.
3. Immediately upon returning to the laboratory, each student will record his/her pulse after exercise
4. Each student will take his/her pulse at one minute intervals until the resting pulse is reestablished.
5. These results will be recorded on the chalkboard for discussion. Is there a difference between the exercisers and the non-exercisers? Which student(s) do you consider to be in better physical condition? Why?
6. Determine the target heart rate range for each student (if the ages are available) and for yourself. The target heart rate range determines the heart rate that should be maintained for 20-30 minutes, at least 3 times per week for cardiovascular fitness.
    - 220 –your age = maximum heart rate (max HR)
    - Max HR –resting HR = HR reserve
    - Target heart rate range =
        - (HR reserve x 60%) + resting HR = low target heart rate
        - (HR reserve x 80%) + resting HR = high target heart rate
7. Include your calculations for your target heart rate in the results section of your report.
8. Evaluate the class results in terms of target heart rate and level of fitness for everyone.

Results:



Discussions:

In this lab we observed the cardiovascular measurements of the heart while a group of students do exercise. 3 men and 3 women volunteered to exercise and get their EKG measured before and after the activity. Woman cardiovascular heart rate drops too low after an activity compared to men.

Conclusion:

In conclusion, I have a better understanding of cardiovascular measurements. From the chart that we see above, we could also observe that men's heart rate is higher than woman even when at resting time.