

## Lab 9- Muscle Physiology

Bio125

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### **Purpose**

The purpose for this activity was to record skeletal muscle fatigue using an electromyogram. This consisted of squeezing a tennis ball until the arm was feeling fatigued and/or no longer able to squeeze the ball.

### **Specifics**

Open the LabScribe3 program by clicking on the LabScribe3 icon on the desktop.

Instruct the subject to remove all jewelry from his/her arm and wrist. Use an alcohol swab to clean the regions of skin on the forearm you are going to use. Let the area dry. Remove a disposable electrode from its plastic shield and apply the electrode to the six locations.

Place the electrodes from proximal to distal on the forearm in the following order: +2, -2 on the posterior and +1, -1 and ground on the anterior

Snap the lead wires onto the electrodes as follows.

The red "+1" lead is attached to the proximal electrode on the anterior surface.

The black "-1" lead is attached to the distal electrode on the anterior forearm.

The green "C" lead (the ground) is attached to the remaining electrode on the anterior surface.

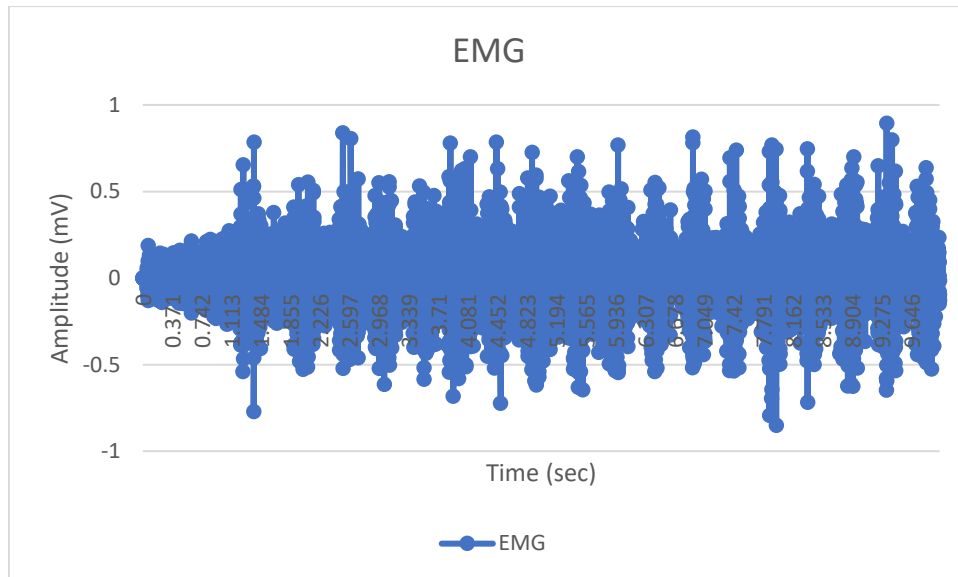
The white "+2" lead is attached to the proximal electrode on the posterior forearm.

The brown "-2" lead is attached to the distal electrode on the posterior surface.

Record an EMG of the muscles of the forearm illustrating agonistic and antagonistic muscle activity. in the Mark box to the right of the Mark button. Click the red "Rec" button to begin the recording; then, press the Enter key on the keyboard to mark the beginning of each the activity.

## Results

9-E. The effects of oxygen supply on skeletal muscle activity.



## Discussion

At first, I didn't know what to do because I was not familiar with this activity, but once I understood the steps and how to do my own measurements, I was enthusiastic to see how my muscles worked and the results it showed.

## Conclusion

Through this activity I learned how electrical activity is measured. I was able to record the muscle activity before and after it experienced fatigue. I noticed how the EMG amplitude decreased as the muscle fatigued.

[Bio125/LAB9.ipynb at main · RosalbaN/Bio125 \(github.com\)](#)