Reflexes notebook

## Reflexes Notebook

You may work LabChart and data analysis as part of your group, but your analysis and answers to the questions below should be your own work and in your own words.

# Data Notebook

#### Table 1. Myotatic Reflex

|  |  | **Latency** (s) | **Angle** (°) |
| --- | --- | --- | --- |
| **Normal** | **1** |  |  |
|  | **2** |  |  |
|  | **3** |  |  |
|  | **4** |  |  |
|  | **5** |  |  |
|  | **Mean** |  |  |
| **Jendrassik** | **1** |  |  |
|  | **2** |  |  |
|  | **3** |  |  |
|  | **4** |  |  |
|  | **5** |  |  |
|  | **Mean** |  |  |

### Exercise 2 Observations

1. What is the response of the pupil when light is shone on it?
2. What was the response of the pupil on the opposite eye?
3. What happens to pupil diameter when the eye is focused for near vision?

### Exercise 3 Observations

1. Were you able to elicit the flexion reflex pushing the pisiform bone in either hand? What is pushing on the bone doing to trigger the muscle contraction?
2. Were you able to find any other bony prominences in the hand at which the reflex could be elicited? Were you able to contract the palmaris brevis muscle voluntarily?

#### Table 2. Reaction Times

|  | **Condition** |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Visual Cue** | **With Warning** | **Predictable** | **With Distraction** | **Auditory Cue** |
| **1** |  |  |  |  |  |
| **2** |  |  |  |  |  |
| **3** |  |  |  |  |  |
| **4** |  |  |  |  |  |
| **5** |  |  |  |  |  |
| **6** |  |  |  |  |  |
| **7** |  |  |  |  |  |
| **8** |  |  |  |  |  |
| **9** |  |  |  |  |  |
| **10** |  |  |  |  |  |
| **Mean** |  |  |  |  |  |
| **Standard deviation** |  |  |  |  |  |

# Follow up Questions

1. What effect does the Jendrassik maneuver have on the myotatic reflex?
2. Based on your data, are the means and standard deviations for reaction time the same under all conditions? Why do you think this is?
3. Do you think the difference in reaction time between auditory and visual cues is due to different processing times in the brain? Ask the volunteer(s) who completed these exercises for their thoughts.
4. Ask the volunteer who completed Exercise 6 whether or not it was easier to complete the task when the cues were predictable. Do your results from this exercise support their statement?
5. Could the difference in reaction time between the exercises only be due to inherent variability in the experimental method?