

# BACKYARD BRAINS

## Action Potentials of Muscles of the Mouth

Name of Subject:

Gender: Man / Woman

Hypothesis: What food do you think will generate the largest amplitude signal (largest RMS in the electromyography signal)? Why?

**First Food** to Chew, Food 1 (Example: marshmallows, gummy bears, french fries...):

Scale of 1-10, hardness of Food 1 (10 being hardest):

RMS of chewing muscle on Food 1:

**Second Food** to Chew, called Food 2:

Scale of 1-10, hardness of Food 2:

RMS of Food 2:

**Third Food** to Chew, called Food 3:

Scale of 1-10, hardness of Food 3:

RMS of Food 3:

**Fourth Food** to Chew, called Food 4:

Scale of 1-10, hardness of Food 4:

RMS of Food 4:

## **Data Summary**

Did your Data Support Your Hypothesis about the the relationship between food hardness and RMS amplitude of muscle chewing EMG signal: Yes / No

¿What is the relation you observed between RMS and perceived hardness (difficulty in chewing)?

- 1) With more perceived hardness of the food, the RMS was higher.
- 2) With smaller perceived hardness of the food, the RMS was higher.
- 3) Neither.

What effects did you observe that surprised you?