

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

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Project Number

J1228

Project Title

Think Fast! Does Exercise Have an Immediate Effect on Reaction Time?

Abstract

Objectives/Goals My objective was to determine if a small amount of exercise can decrease one's reaction time.

Methods/Materials

I tested about thirty seventh grade students using a reaction testing machine. Simply, the machine tests the amount of time it takes an individual to push a button after seeing a light or hearing a buzzer. I tested the individuals initially, then asked them to run half a mile, then tested them again.

Results

Reaction time appears to be decreased immediately by exercise.

Conclusions/Discussion

It seems that reactions are faster after one has exercised. However, my results were not as conclusive as I would have liked. Only sixty percent of my test subjects showed improvement. Because of the ease of testing in a PE setting, the exercise used was a half mile run. In the future, I'd like to determine if a quicker exercise (such as jumping jacks) might yield more favorable results.

Summary Statement

My project was to determine if exercise can immediately reduce reaction times in humans.

Help Received

My uncle built the reaction testing machine, my mother helped me type my report, my PE teachers allowed me to test during class.