

Emily Butler
9/25/08

40/40
Bio AR
State lab #1

Resting vs. Exercising Before Squeezing Clothespin

- **Hypothesis:** My hypothesis for this experiment was that if you exercise before squeezing the clothespin, you would squeeze the clothespin more times in a minute than if you rested before squeezing the clothespin.
- **Methods and Materials:** First, we conducted a rest trial. We had our person rest for a minute squeeze the clothes pin as many times as she could in a minute. Then, she exercised doing push-ups for one minute and immediately after she squeezed the clothespin as many times as she could for a minute. We repeated the exercising trial two more times. Last, we recorded our results. The materials we used were a clothespin, a timer and Allie Webster was the person used during this experiment.
- **Data Collected:**

Trial One	Trial Two	Trial Three	Trial Four
Resting	Exercising	Exercising	Exercising
170 squeezes	197 squeezes	203 squeezes	242 squeezes

- **Discussion and Conclusions:** My hypothesis was right. We conducted our experiment and Allie ended up squeezing the clothespin more times after exercise compared to resting before squeezing the clothespin. I think that the exercising warms up your muscles, so you can squeeze it more times.
- **Suggestions for Improvement:** To improve this experiment you could try different types of exercise, such as jumping jacks, jogging in place or dancing. Also we could have had errors, such as not starting the timer at the right time or miscounting the number of squeezes. You could also try different people and different things instead of using a clothespin or using someone else for the experiment.
- **Suggestions for Further Research:** When you conduct an experiment many questions could be produced. Other questions that

could have been produced are if height or age affects the results or if the age of someone affects the results. We could also study boys vs. girls and the nutrition of the person.

Height vs. Exercising Before Squeezing Clothespin

- Hypothesis:** My hypothesis for this experiment was that if you exercise before squeezing the clothespin, you would be able to squeeze the clothespin more times in a minute than if you didn't exercise before squeezing the clothespin.
- Methods and Materials:** First, we conducted a test that we had our person rest for a minute, squeeze the clothespin as many times as she could in a minute. Then, she exercised for 2 minutes and immediately after she squeezed the clothespin as many times as she could for a minute. We repeated the exercising and two more times. Last, we recorded our results. The materials we used were a clothespin, a timer, and Allie Webster was the person doing during the experiment.

Data Collection

Trial One	Trial Two	Trial Three	Trial Four
Resting	Exercising	Exercising	Exercising
10 squeezes	197 squeezes	203 squeezes	242 up squeezes

- Discussion and Conclusion:** My hypothesis was right. We conducted our experiment and Allie ended up squeezing the clothespin more times after exercise compared to resting before squeezing the clothespin. I think that the exercising works up your muscles, so you can squeeze it more times.
- Suggestions for Improvement:** To improve this experiment, you could try different types of exercise, such as jumping jacks, jogging in place or dancing. Also we could have had errors, such as not starting the timer at the right time or miscounting the number of squeezes. You could also try different people and different things instead of using a clothespin or using someone else for the experiment.
- Suggestions for Further Research:** When you conduct an experiment many questions could be produced. Other questions that

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Bio8AR
State Lab #1

40/40 (4)

The Effect of Exercise on a Human's Ability to Squeeze a Clothespin.

- **Hypothesis:** If you exercise instead of resting you will be able to squeeze a clothespin more times in a minute.
- **Methods and Materials:** In this experiment we used Mike Peasley (me) as a guinea pig to test the experiment, a clothespin and a timer. First I rested for one minute then squeezed it for as many times as I could in one minute and rested for one minute then jogged in place for a minute then squeezed the clothespin for a minute and repeated the rest, jog, squeeze process two more times.

• **Data Collected:**

Trial 1	Trail 2	Trial 3	Trial 4
Rest	Jogged in place	Jogged in place	Jogged in place
90 Squeezes	120 Squeezes	129 Squeezes	142 Squeezes

• **Discussions and Conclusions:** The collected data supports our hypothesis because the more I exercised the more times I could squeeze the clothespin in a minute. The conclusion follows our data by showing the more exercise I did the more my blood began to flow and that allowed me to squeeze the clothespin more times in a minute due to the greater amount of oxygen flow in the blood.

• **Suggestions for Improvement:** We controlled the variables of me doing the same exercise and did it for the same amount of time. We think that a longer break in the test time would have a big impact on the results because my body would have had a chance to return to normal to see if the hypothesis stayed true the whole time or not. We also think that the speed of my jogging impacted the research by changing the amount of oxygen needed and the last thing we think effected our research a lot was the rooms temperature and mine changing the amount of sweat I gave off changing the blood flow pattern.

• **Suggestions for further research:** In further research we would have different people try it to see if our hypothesis that exercise for humans instead of resting will allow you to squeeze the clothespin more times in a minute holds true for more people than just me.

We could also see if people were more athletic then others the results may change a lot because the more athletic people would be able to get rid of the carbon dioxide faster that way letting you exercise more changing the results. We could also see if different exercises had the same effect as the jogging in place did.

Data Collected

Trial 1	Trial 2	Trial 3	Trial 4
Rest	Jogged in place	Jogged in place	Jogged in place
90 Squeezes	120 Squeezes	120 Squeezes	142 Squeezes

Discussion and Conclusion: The data collected supports the hypothesis because the more I squeezed the cloth spin the more times I could squeeze it in a minute. The data shows that I did the most squeezes in a minute when I was jogging in place. This shows that the more I exercised the more I could squeeze the cloth spin in a minute. This shows that the more I exercised the more I could squeeze the cloth spin in a minute.

Suggestions for Improvement: We controlled the variables of not doing the same exercise and did it for the same amount of time. We think that a longer break in the test would have a big impact on the results because my body would have had a chance to rest and not be as tired. We also think that the speed of the person doing the research by changing the amount of oxygen needed and the time taken to do the research a lot was the room's temperature and time changing the blood flow pattern.

Suggestions for Further Research: In further research we would have different people try it to see if the hypothesis was true for humans instead of testing with a cloth spin. This would show you if the hypothesis was true for more people than just me.