



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

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| Name(s) Aliyah Dost | Project Number 35592 |
| Project Title Operation Combat Cholesterol | |
| Objectives/Goals For my project, I compared the effectiveness of home remedies and over the counter medication on lowering cholesterol. My hypothesis was that the Niacin 1,000mg capsule would be the most effective in decreasing cholesterol, while the cinnamon water will be the least effective. Abstract Methods/Materials The cholesterol I used was pig fat because it is the closest to real human fat/cholesterol. The solutes I used included apple cider vinegar, fiber, green tea, cinnamon water, pomegranate juice and Niacin 1,000mg capsules. First, I added 10g of pig liver to each solute and incubated the jars for 30 minutes at 37 degrees Celsius. Then, I weighed the pig fat and added it to the solute-pig liver combo. After 6 hours of incubation I weighed the jars again and calculated the difference. This process is commonly used in toxicology to mimic liver metabolism. Results I conducted 30 trials. The following are the averages at which the solutes decreased the amount of pig fat: green tea by 15.5g, the pomegranate juice at 13.5g, Niacin 1,000mg capsule at 12g, apple cider vinegar at 11g, fiber at 10.5g, and cinnamon water by 8.5g of fat. Conclusions/Discussion My results show that the first part of my hypothesis was incorrect because the green tea decreased the most amount of pig fat and not the Niacin 1,000mg capsule. The latter part of my hypothesis was correct because cinnamon water did decrease the least amount of pig fat. With these results I want to better educate people about the effectiveness of home remedies on lowering cholesterol. I would like to also further my research to find a way to add the antioxidants found in the home remedies to the medications to give them an added benefit. | |
| Summary Statement Do home remedies or over the counter medication work better to lower cholesterol? | |
| Help Received | |