



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

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Project Title
Branded vs. Nonbranded: What Is More Effective? Search for the Best Allergy Relief Medicine

Abstract

Objectives/Goals
The purpose for my experiment was to find out which allergy medicine dissolves fastest in the stomach. I came up with this idea because my mom has allergies and takes different kinds of medicines. I wanted to know which medicine would dissolve the quickest and would give my mom the quickest relief. I also wanted to find out if Branded medicines were better than generic/store branded medicines. We pay a lot more money for the branded names though the ingredients are essentially the same. If both types of medicines are equally effective, then I can save some money for my parents.

Methods/Materials
5 tablets each: Claritin Reditabs, Actifed, Benadryl, Zyrtec, Kaiser Permanente Allergy, Walgreens Wal-dryl Allergy, Wal-Zyr, and Allergy Relief (CVS pharmacy), 4 liters HCl/vinegar, measuring cup, 1 timer, 8 plastic cups, and paper towels.
Get 8 plastic cups and label all with the 8 different tablet/medicine names. Pour 100 ml of vinegar into each cup. Put the appropriate tablet into each beaker and start the timer. When a tablet/medicine is dissolved, record the time for each. Continue till all the tablets dissolve. Pour out the vinegar/HCl and rinse the cups with water.
Dry with a paper towel.
Repeat this process for multiple trials.

Results
By looking at the results (graphs and data), branded medication was more effective overall than the non-branded medication. The only exception was Benadryl. Claritin Reditabs was the most effective medicine of all.
All the pairs of medicines had the same ingredients, but the generics were less effective than the branded in all the cases, except for the pair: Benadryl and Wal-dryl.

Conclusions/Discussion
My first hypothesis was incorrect. Claritin Reditabs was the most effective of all. I thought Zyrtec would be the most effective through my survey. Zyrtec was the fourth fastest medicine. Claritin Reditabs was the most effective.
My second hypothesis was correct. Branded medicines was more effective than generic/store branded medicines. The only exception was Benadryl. Finding HCl was very difficult. I also learned a lot of safety while using acids. It was difficult to record the time, write the observations, and also check what was happening in the 8 different medicines simultaneously. After my first trial, I had an idea of how quick

Summary Statement
The allergy medicine that would be the most effective and whether Branded medicines are better than generic/store branded medicines.

Help Received
Used lab equipment at Salinas High School under the supervision of Ms. Merchant; Mother prepared HCl acid solution (pH: 1.4); Dad drove me to pharmacy stores.