



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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| Name(s) Alexandria C. Brown | Project Number J1403 |
| Project Title A-B-C . . . As Easy as Acidity | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of this project was to determine which non prescription antacid lowers the acidity in a person's stomach the most potently. My hypothesis was that pepdo-Bismol brand antacid would lower the acidity of the hydrochloric acid solution the most noticeably because of its higher concentration in the active ingredient, Bismuth Subsalicylate, above the other brands.</p> <p>Methods/Materials The experiment involved testing the pH of a hydrochloric acid solution once mixed with different brands of antacids. The antacids used were all chewable tablets that are mild enough to use without a prescription. 10ml of a hydrochloric acid solution was used to represent the hydrochloric acid in a person's stomach and the pH level of the solution once mixed with the antacids represented how much the antacid actually lowered the acidity level of the solution.</p> <p>Results The control or untouched data, which in this case was the hydrochloric acid solution with no added variables had a pH of 4. Pepcid-AC received 4.5. Zantac 75 read 4.5 as well. Cimetidine 200 had a pH of 5. Pepto-Bismol which lowered the acidity level of the hydrochloric acid solution the most noticeably had the pH of 6.</p> <p>Conclusions/Discussion In conclusion, my hypothesis was proven correct. Earlier in my hypothesis I stated that Pepto-Bismol would lower the acidity of the hydrochloric acid solution the most noticeably because of its high concentration in its active ingredient. The experimental data supported my hypothesis, indicating that Pepto-Bismol actually does cope with stomach acid complications more effectively than other brands. With this new found information scientists may be able to expand this project by developing a stronger antacid using some of the same active ingredients. This new developed antacid could possibly treat more serious acid complications such as Acid Reflux disease and Ulcers.</p> | |
| Summary Statement The purpose of my project was to test to see which antacid lowers the acidity in your stomach the most using 5 different brands. | |
| Help Received My mother proof read my projects, helped me assemble my display board, and helped me gather supplies. My brother helped me develop my experiment. My teachers Mr. Snell and Ms. Solaegui helped me with any problems or questions I had with my project. Ms. Solaegui allowed me to borrow some of the | |