



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Julia M. Thackrey	Project Number J1326
Project Title How Dogs Affect Blood Pressure	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to study how being in a room with a dog affected the blood pressure of people over the age of forty, the age group at highest risk for hypertension. I hypothesized that exposure to a dog will decrease blood pressure.</p> <p>Methods/Materials The test subject was asked to sit in a chair and complete the experiment questionnaire. After a period of three minutes, the test subject's blood pressure was recorded. This established the subject's baseline blood pressure. Next, the subject was moved into the experiment room where a ten pound Bichon Frise was roaming freely. The subject was given instructions and observed. After three minutes, the subject's blood pressure was recorded. This measurement was considered the experimental blood pressure. The experiment was repeated for three different test groups in order to increase the reliability of results. Sixty two test subjects over the age of forty were tested in all.</p> <p>Results 83.9% of the participants experienced a decrease in blood pressure during the experiment. 65% of the test subjects decreased their systolic blood pressure in amounts known to reduce stroke and death. Evaluating the result data using the experiment questionnaire enhanced the informative quality of the research by addressing variables affecting experiment results. For example, using the questionnaire data, it was determined that 92.6% of the participants aged 60-79 experienced a decrease in blood pressure compared to 73.7% of those aged 40-59. Results were also analyzed and compared for dog owners and non-dog owners, males and females, dog lovers and non-dog lovers, and those with a medical history of high blood pressure.</p> <p>Conclusions/Discussion The results of this research support my hypothesis, indicating that dogs can indeed lower blood pressure for many individuals. While it is true that influencing variables affect the degree of benefit, the overwhelming results of this research experiment demonstrate the possibility of improved health for many Americans. In application, using a canine companion as a non-medicinal way of lowering blood pressure has the potential of revolutionizing healthcare in convalescent homes, personal residences, and other elder care facilities.</p>	
Summary Statement I designed this project to examine whether exposure to a dog can improve one's heart health by reducing risk for heart attack and stroke.	
Help Received St. Brigid Church allowed me to use office space to conduct my experiment.	