



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Sharona A. Silverstein	Project Number J1128
Project Title Does Viewing Animal Pictures Positively Affect Cardiovascular Health?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals Cardiovascular health is shown by heart rate and blood pressure. Interaction with pets and the presence of animals lowers blood pressure, heart rate and responses to stress. The objective of this project is to determine if viewing animal pictures can positively affect cardiovascular health. It is hypothesized that blood pressure and heart rate in stressed subjects will decrease after viewing animal pictures, but there will be no differences in control subjects.</p> <p>Methods/Materials 73 pre-dental college students were randomly assigned to Experimental and Control groups. Subjects were given a math activity as a stressor, then shown a 2.5 minute PowerPoint slide show. The Experimental group saw pictures of animals on green backgrounds. The Control group saw only the green backgrounds. Blood pressure and heart rate were measured at baseline (Time 1), after the stressor (Time 2) and after the slide show (Time 3).</p> <p>Results Subjects ranged from 18-32 years (mean=23.0). Compared with baseline, systolic and diastolic blood pressures and heart rate were significantly increased after the stressor ($t=-3.00$, $p=.002$; $t=-1.68$, $p=.003$; and $t=-3.28$, $p=.0008$). In the Experimental group, systolic and diastolic blood pressure and heart rate were significantly lower after as compared to before viewing the slide show (decreases=7.8mmHg, $t=6.73$; 5.4mmHg, $t=5.05$; 3.0bpm, $t=5.59$; $p\#s<.0001$). In the Control group, there were no significant differences in blood pressure or heart rate after viewing the slide show.</p> <p>Conclusions/Discussion My hypothesis was confirmed. Blood pressure and heart rate in stressed subjects were lower after viewing animal pictures, but there were no differences in the Control group. Viewing animal pictures can positively affect cardiovascular health.</p>	
Summary Statement This project examines whether viewing animal pictures can lower blood pressure and heart rate.	
Help Received Parents bought supplies used for this project, mother drove me to UCSD to collect data.	