



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Rachel A. Dupont	Project Number J1113
Project Title To the Beat of Your Heart	
Abstract Objectives/Goals How does music affect the pulse and blood pressure of Alzheimer's patients? I predict that the classical music of Mozart will lower the blood pressure and pulse rate of older adults with Alzheimer's disease. I also predict that rock music of Van Halen will make the blood pressure and pulse rate increase in older adults with Alzheimer's disease. Finally, I predict that the swing music of Glenn Miller will increase pulse and blood pressure due to excitement.	
Methods/Materials 4 mild stage Alzheimer's patients A blood pressure/pulse machine Ipod Headphones a timer Notepad/journal and pen for note taking 1. Take blood pressure and pulse before playing the music. 2. Play one of three of the music. 3. Stop music and take blood pressure and pulse. 4. Repeat for all three music types.	
Results The classical music of Mozart made everyone's pulse and blood pressure go down. The rock music of Van Halen made everyone's blood pressure drop and all but one patient's pulse increased. The swing music of Glenn Miller excited everyone's pulse and made it increase. However, half of the patient's blood pressure went up and half went down after hearing the swing music of Glenn Miller.	
Conclusions/Discussion The research I did explained that the Music of Mozart and other classical music is very helpful and comforting to older adults with Alzheimer's disease. In my journal I keep careful notes on each patient's responses. The classical music really calmed and comforted each patient. Their comments were all positive. However, the rock music seemed to stimulate their memory. Classical music calmed their blood pressure and pulse and it lowered it as much as medication could. Nurses and professionals should also make sure that they are not playing their favorite music but music that is stimulating and calming for their patients.	
Summary Statement I tested the blood pressure and pulse of Alzheimer's patients after hearing 3 types of music.	
Help Received Mother helped with the patients; Nany and her friend helped with the graphs and typing.	