



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Millun Atluri	Project Number J1103
Project Title Does Music Affect Blood Pressure and Heart Rate?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to determine if music affects blood pressure and heart rate.</p> <p>Methods/Materials Informed consent was obtained from 16 people ages 39-45. There were 9 women and 7 men from multiple cultural and ethnic backgrounds. Blood pressure and heart rate were measured before the experiment for each subject. An aneroid sphygmomanometer was used to measure the blood pressure and heart rate was taken manually by measuring the beats at the wrist of the subject. Each subject listened to two different types of music - tense and soothing with a break in between. Heart rate and blood pressure were measured again after each type of music was played.</p> <p>Results Tense music was found to have increased blood pressure in majority of the subjects. Due to tense music, 100% of the subjects experienced an increase in diastolic pressure and 94% experienced an increase in systolic pressure. Soothing music had the opposite effect. 68% experienced a decrease in diastolic pressure and 100% experienced a decrease in systolic pressure due to soothing music. The heart rate also varied in the same fashion as the blood pressure for the two types of music. It increased in 100% of the subjects due to tense music and decreased in 87.5% of the subjects due to soothing music.</p> <p>Conclusions/Discussion My experiment shows that music does affect the blood pressure and heart rate. Different subjects reacted similarly to both tense and soothing music. Based on the results of this experiment, music therapy can not only be used for the mental ailments, but also for physical illnesses such as hypertension.</p>	
Summary Statement My project was about the physical effects in the body measured by blood pressure and heart rate due to different types of music.	
Help Received Dad helped choose the music. Uncle showed how to measure blood pressure and heart rate. Guidance from parents.	