



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

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Project Title Human Battery	
Objectives/Goals The experiment will prove which gender produces the most electric current and in which condition do they have a greater current. The testing is done with two different types of metal plates hooked up to an ammeter. The subject then places his/her hands on the plates which gives the ammeter a reading of how strong the electric current is in the subjects body.	
Abstract	
Methods/Materials Materials: [1] Copper Plate [1] Aluminum Plate [1] Large block of wood [1] Micro Ammeter[x] Human test subjects [1] Sink with running water Procedure: 1. Gather all materials 2. Set up experiment 2a. Place metal plates over wooden blocks (to keep other electric currents from reaching the plates) 2b. Set negative side of ammeter to one plate 2c. Set positive side of ammeter to other plate 2d. Turn the ammeter to 2mA 3. Have subject place each hand on a separate plate 4. Record the reading from the ammeter 5. Repeat [Steps 3&4] with different subjects 6. Have subjects thoroughly wash their hands with water and dry them 7. Repeat [Steps 3,4,&5] with different subjects 8. Have subjects jump in one spot for approximately 1 minute 9. Have the subjects rub their hands together 10. Repeat [Steps 3,4,&5] with different subjects 11. Chart the results from the data 12. Find average of both genders 13. Find average of all the different #conditions#	
Results The results of the testing showed that the Males produced a stronger current of electricity. The males average was .056 amps and .047 amps for the females. The jumping did increase the strength of the current but some males had different results and had a better current from not doing anything. These results may have had an error from the test subject. Some of the males either didn't participate correctly, or they didn't sweat enough for the correct reading from the ammeter.	
Conclusions/Discussion The experiment is important because it can be used in certain medical monitoring or artificial parts. Pacemakers can vary from person to person on how strong they need to be. We can determine the strength of a pacemaker by the gender and type conditions the person undergoes the most. Since females generate the most electricity in their bodies, they need a stronger pacemaker as opposed to males. A normal, clean, active person would need a stronger pacemaker as well.	
Summary Statement The experiment will prove which gender produces the most electric current and in which condition do they have a greater current.	
Help Received Grandfather purchased materials and helped set up board. Neighbor helped with ammeter settings.	