

Rachel Rossi
Junior Division Physics
Radio Wave Roundup

This project was designed to determine the effects of cellular phone use on the radio frequency readings of the human body, both during and after use. The experiment I conducted involved building a Faraday Cage to block the background radio frequencies. I then built a “cantenna,” a directional antenna built from a juice can, an N-Female connector, copper wire and a pigtail. I assembled my test subjects at the Fort Lewis College Physics Lab. The test subjects were placed in the Faraday Cage with the cantenna pointed directly towards them. Tests were taken prior to any cellular phone use, while holding the cellular phone and after all use of cellular phone. The test subjects filled out a questionnaire pertaining to their cellular phone use, lifestyle and occupation. The results of my testing are significant because they indicate the amount of radio wave exposure experienced during cellular phone use.