

How Well Does Hand Sanitizer Actually Work?

The control group will contain a bacterial sample taken from a "clean" hand. The experimental group will consist of samples taken from the same "clean" hand after the use of hand sanitizer. I will test several different brands of hand sanitizer, each with a different percentage of the "active ingredient", ethyl alcohol. These samples will be kept at 37° C for a period of 2 days. I will take a sample from any bacterial colonies that may form and examine the bacteria samples under the microscope. Next, I will attempt to identify any bacteria and record the results.

Hypothesis- I believe the results for any of the hand sanitizers will be the same regardless of concentration. I expect the hand sanitizers to kill some of the bacteria, but not all.

Materials Needed

- 6-8 TSA plates
- 6-8 sterile swabs
- 1 tube of sterile saline (aqueous solution of 0.9% NaCl) or sterile water.
- Varying concentrations of hand sanitizer
- 6-8 slides
- Crystal Violet, Safranin, iodine, and alcohol
- Bunsen burner
- Wax pencil
- Bibulous paper
- Immersion oil
- Safety glasses
- Wavecide

Timeline

March 1, 2012	All bacterial samples taken.
March 8, 2012	All samples Gram stained.
March 29, 2012	All samples examined and Identified.
April 5, 2012	Final results and report completed.
_____ & _____	Meetings with Mentor