

Hand Hygiene

Junior Health and Life Sciences

Be aware, wash with care!

Handwashing and what cleans your hands better such as different soaps, sanitizers, or just plain water has been a hot topic across the world especially as of late and Health Organizations across the world can vary in suggestions about which is the best method for hand hygiene.

It is hypothesized that hand washing with bottled soap, or any soap is going to be better than using sanitizer or just plain water.

In the experiment on March 6th, 2023, hands were dirtied by licking them and rubbing hands together and then one of the 9 different methods (clean water only, soap bar, brand name antibacterial soap, natural soap, no name brand soap, dish soap, name brand and non-name brand sanitizer and alcohol-based hand wipes) was utilized to clean hands. The hands were then swabbed and gently rolled into a pre-poured agar plate and monitored daily until March 11th, 2023, to see which method cleaned the hands best.

What has been witnessed this far is that the hand soaps seem to be cleaning hands better than washing with clean water only or any alcohol-based hand sanitizers. The sanitizer that did work the best this far was the one with 62% ethyl alcohol. The 70% ethyl alcohol-based hand sanitizer claims to be made from plant-based alcohol and has different ingredients than the 62% ethyl alcohol sanitizer which may be the reason for it to not work as effectively although it claims to kill 99.9% of germs this is not what has been witnessed.

The experiment has been tested again March 19th, 2023, using the same methods as the first experiment and will be monitored daily until March 24th, 2023, to see if the findings are the same. This process is still in progress.

Based on the results on March 24th, 2023, I should be able to conclude which works better either washing hands with soap and water, just plain water or alcohol-based sanitizers.

I have learned that health organizations recommend hand washing first and if soap and water is not available then to use hand sanitizer with at least 60% alcohol. There is no such thing as a germ-free environment and our hands help spread germs, so it is very important to always wash your hands.

So, remember in all the lands, wash your hands!