

QUIT TALKING DIRTY!

Could your cell phone be more of a communicable device than a device for communicating?



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Introduction

- Mobile phones have become a necessity to keep in contact with family and friends, but are now common within the work place, even healthcare and foodservice workers. Workers in these environments have contact with people and food, the potential for transferring bacteria to individuals is high.
- The 3M Aerobic plates do not indicate the type only the presence of bacteria. Common bacteria discovered in previous research are *Staphylococcus aureus* and *Acinetobacter* transferred from hands; *Escherichia coli* suggests fecal contamination, all can cause serious infections in those with compromised immune systems.

Purpose

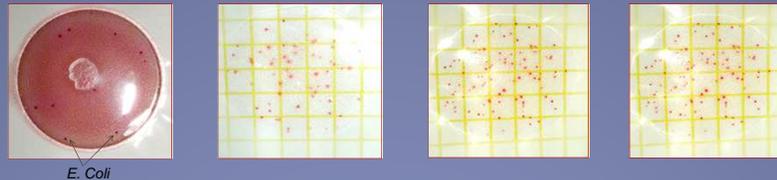
Determine contamination on various styles of mobile phones and the efficacy of different disinfectants to sterilize and limit the transfer of bacteria.



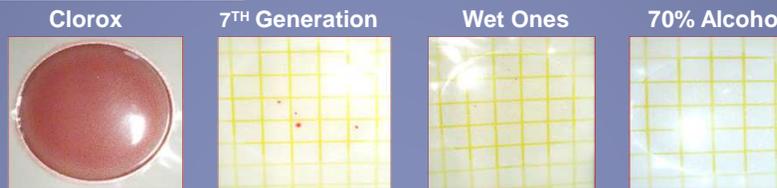
Methods

- Students completed a short questionnaire on hygiene
- 3M Quick Swabs were used to obtain bacteria
- Each phone was wiped with a disinfectant wiper
- Waited 10 minutes for phones to completely air-dry, the disinfected phones were swabbed again with the 3M Quick Swabs
- Media were poured onto 3M Aerobic and E. Coli/Coliform Petrifilm plates, and incubated for 48 hours
- Disinfectant Wipes used and active ingredient:
 - Clorox Wipes (n-Alkyl Dimethyl Benzyl Ammonium Chloride 0.145%)
 - 7th Generation Wipes (Thymol 0.05%)
 - Wet Ones Wipes (Benzethonium Chloride 0.3%)
 - Alcohol Wipes (Isopropyl Alcohol 70%)
- Phone Styles tested: Smart, Flip, Slider/Swivel, and Blackberry phones

BEFORE DISINFECTANT:



AFTER DISINFECTANT:

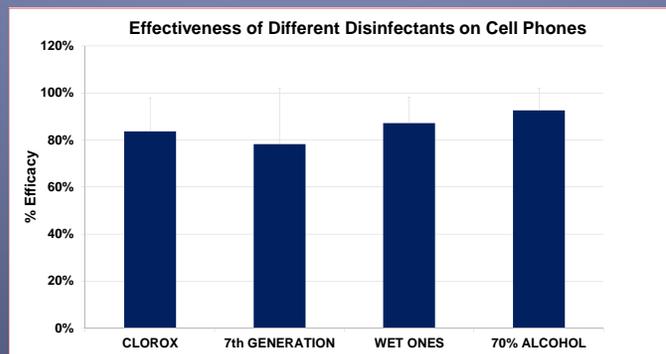
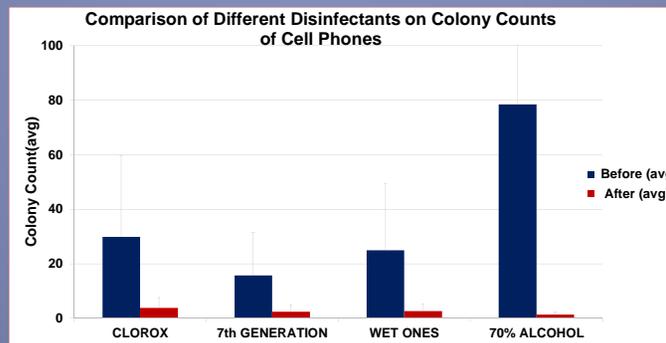


Results

- 100% of phones tested were contaminated (n=34)
- 3% of phones tested positive for E. Coli
- 67% admitted never cleaning their phones, yet 53% washed their hands 5-10 times per day
- The effect of commercial disinfectants was statistically significant (P=0.01)
- 83% of bacteria were eliminated on average after disinfectant use

Conclusion

- Mobile phones are indeed contaminated with bacteria
- Bacteria can be transferred easily from hands to cell phone in certain environments
- Regardless of active ingredient, cleaning regularly with commercial wipes are inexpensive (\$0.08/wipe) and have a significant impact on lowering the overall risk of contamination



Acknowledgements

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