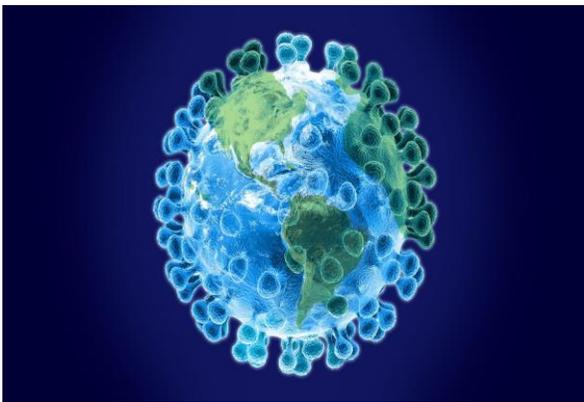


What, When and How Often Should I Clean During a Pandemic

ZOOM Presentation by Gail Fellows
Environmental Health & Safety
Finance and Administration
Thursday, January 7, 2021



COVID-19

The Name for the Disease Caused by Exposure to
(2019-nCoV) SARS-CoV-2
CO=corona; VI=virus; D=disease

- ▶ Member of the Coronavirus Family
- ▶ Not a new virus, has been known about for decades
- ▶ Its suspected that it's ancestors existed 10,000 years ago
- ▶ Originally found in birds and bats
- ▶ USA SARS (2002-2004) and MERS (2014) outbreaks were part of the coronavirus family
- ▶ Emerging SARS-CoV-2 Variants have been detected. The virus mutates regularly, most mutations are silent; CDC monitors and analyzes samples and shares results in public databases, however, only a very small fraction of positive tests are being sequenced; currently a few variants are of concern- United Kingdom, South Africa, and Namibia (Jan 7, 2020).

What Do You Want to Clean?

Laundry
Items

Vehicles

Electronics

Kitchen/Bathroom

Toys

Groceries

Sports
Equipment

Furniture

Shoes

Office Equipment

This presentation is geared for
personal Pandemic cleaning

Health Care Professionals, Hospitals
or other Public Settings are exposed
to a much higher viral load



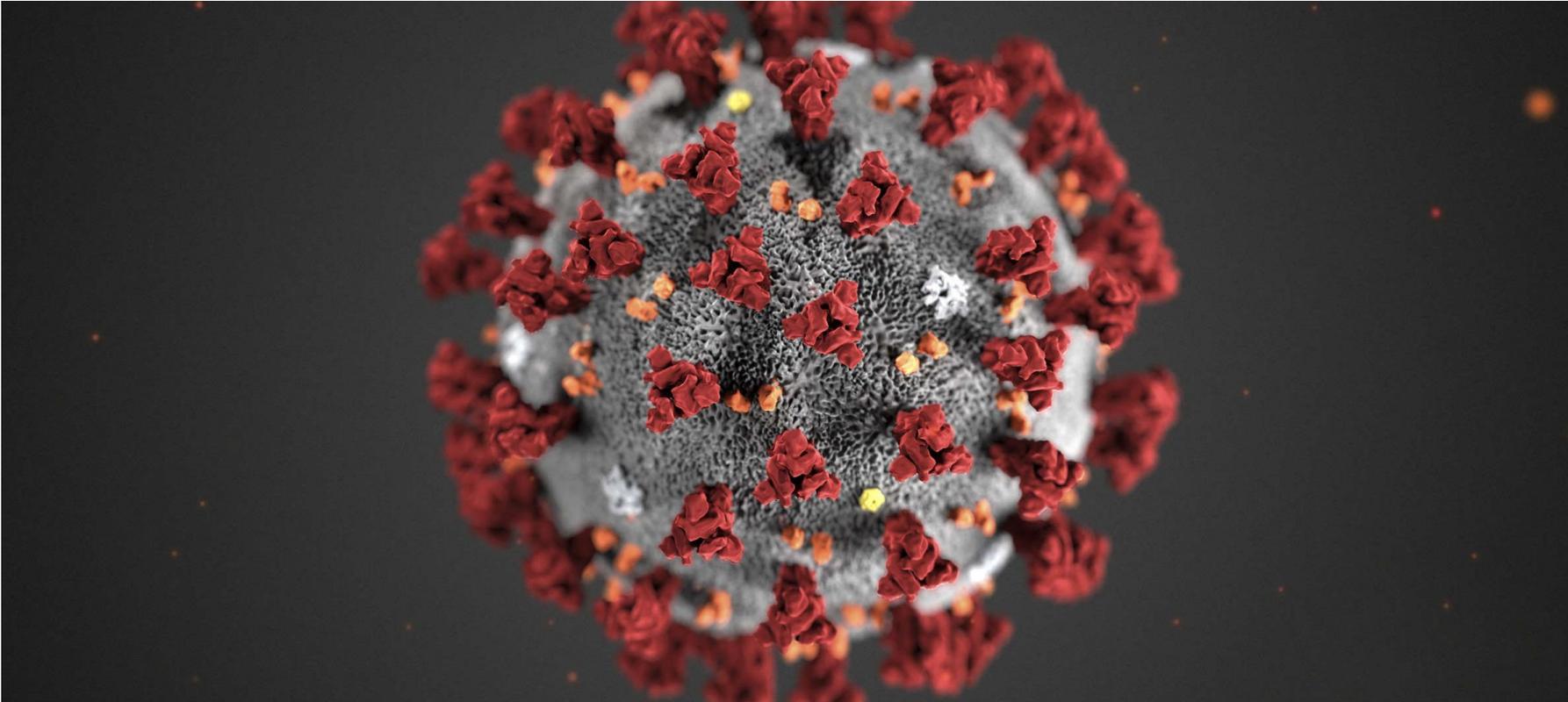
Cleaning VS Sanitizing/Disinfecting

Cleaning

- ▶ **Cleaning** removes germs, dirt, and impurities from surfaces or objects.
- ▶ You have to clean the surface before the disinfectant will have the desired effect
- ▶ By cleaning you remove the nutrients that bacteria need to grow

Sanitizing/Disinfecting

- ▶ **Sanitizing** lowers the number of germs on surfaces or objects to a safe level, as judged by public health standards or requirements.
- ▶ These products cannot effectively penetrate through dirt and debris to do their work of killing the bacteria that are present



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COVID-19 Microscopic View

The coronavirus has an outer layer of fats with protein spikes. The fatty layer is water-repelling and surrounds the virus and protects it.

How Soap Kills the COVID-19 Virus

- ▶ Most common household soaps (including liquid dishwashing and laundry soap) have detergents in them that can break down the virus.
- ▶ The soap molecule has two parts. A head part that is attracted to water and a long tail part that is repelled by water (and loves oil/lipids/fats).
- ▶ When soap molecules dissolve in water, they arrange themselves into spherical clusters with the water attracting heads on the outside and water-repelling tails on the inside.
- ▶ When a coronavirus is encountered, the water-repelling tails are attracted to the fatty layer around the virus genetic core and they insert themselves into that protective layer dissolving it and disrupting the virus' ability to survive.
- ▶ This doesn't happen immediately. It takes about 20 seconds to generate a good lather and cover all parts of your hands or the item being cleaned.
- ▶ Washing with soap is the easiest, most effective and an affordable way to prevent serious diseases and infections.

Hand Sanitizer

for use when soap and water not readily available

- ▶ To be effective must contain at least 60% alcohol
 - ▶ (ethanol, ethyl alcohol, isopropanol, or 2-propanol)
- ▶ For Safety do not buy or use sanitizers packaged in food or beverage containers
- ▶ Do not store containers in hot places, such as your vehicle in the summer time, long-term heat, long-term sun exposures, temperatures over 105 degrees F can degrade hand sanitizer (if you use one container and keep it in the car, that should be okay as it is being used up before it should go bad)
- ▶ Gel that is cloudy should be discarded. Most hand sanitizer products should be effective up to three years from date of manufacturing
- ▶ Do not buy sanitizers labeled “alcohol free”
- ▶ **To Properly Apply:** Rub gel over all surfaces of your hands and fingers until your hands are DRY

Side Effects of Hand Sanitizers

- Recognize that your skin can absorb chemicals; alcohol is a chemical, be prudent with how often you use hand sanitizer; alcohol can harm your health-both inside and outside
- Alcohols can dry out the skin, they strip away the natural oils and cause irritation and dermatitis conditions
- Some may contain triclosan- leads to development of antibiotic-resistant bacteria, and could cause hormonal disruption in the body and was originally registered as a pesticide in 1969.
- Researchers have discovered that there are bacteria that have emerged since 2010 that are 10 times more tolerant to alcohol-based hand rubs than older strains making hand sanitizer less effective



EPA Lists of Registered and Certified Cleaning Products to Kill COVID-19

Website: [epa.gov/listn](https://www.epa.gov/listn)

Look for These Active Ingredients

Quaternary Ammonium and Ethanol (Ethyl Alcohol)

Others May Contain: Hypochlorous Acid, Hydrogen Peroxide,
Sodium Hypochlorite (Bleach) and Citric Acid

Its important to know the “dwell or contact time”.

**How long the product must remain wet on the surface to ensure it
will work at killing the virus (2 to 10 minutes is typical)**

Millersville University Cleaning Products/Procedures



- ▶ Use Hillyard's Restroom Cleaner
- ▶ Use a Clorox disinfectant (not bleach) in the sanitation stations
- ▶ Both products are registered by the EPA to be effective against COVID-19
- ▶ Both products do not require the use of gloves as PPE.
- ▶ Public touch points (door handles, etc) are cleaned twice a day.
- ▶ It is important to know that custodians are assigned to each building but each building will not receive the same level of clean. Restrooms may be cleaned more than once per day.
- ▶ The buildings with the heavier usage will get greater attention.
- ▶ If any staff are working in a building and would like to know the cleaning and disinfecting schedule for their building they can simply e-mail Patrick Wilson at Patrick.wilson@millersville.edu.



- When using chemicals, there is no one size fits all
- Avoid fancy electrostatic sprayers and other expensive devices. A plain old trigger/pump sprayer works just as well and won't put your health at risk of inhaling disinfectants at levels above safe limits
- Remember, if it kills germs, it kills people when given in sufficient quantities

TIME is the Best Disinfectant

COVID-19 and Coronavirus estimated time it is viable

COVID-19**

- Aerosols: for three hours
- Copper: 4 hours
- Cardboard: 24 hours
- Plastic surfaces: 2 days but could be up to 3 days
- Stainless steel surfaces: up to 3 days

Coronavirus

- Paper: few minutes, up to five days
- Aluminum: 2-8 hours
- Wood: 4-5 days
- Metal: 5 days
- Glass and Ceramics: up to 5 days
- Fabric: Unk, less than hard surfaces
- Food: doesn't spread through food

**Controlled Research Studies conducted by the National Institute of Health;
National Institute of Allergy and Infectious Diseases



If your careful what you do and touch then there is less cleaning you need to do in your home or work environment

Groceries



- ▶ It is not necessary to sanitize your groceries or leave them outside after purchasing them.
- ▶ There is no evidence of human or animal food and its packaging transferring the COVID-19 virus. (per FDA/CDC and others)
- ▶ The risk from groceries is the people you encounter while you are shopping
 - ▶ Have groceries delivered, make fewer trips, if using reusable bags-wash after use (not just due to COVID-19, to prevent meat/eggs/etc contamination of food items)
- ▶ Wash hands with soap and water after handling, wipe down countertops after unloading your groceries, better yet don't place bags on your countertops
- ▶ Wash fruits and vegetables before you eat them, not right after you bring them home
- ▶ Wipe can lids before opening cans, wash fruits and vegetables before eating

Electronics



How Often to Clean

- ▶ Frequently, depends on usage
- ▶ TV Remotes, computer keyboards and mobile phones can have very high level of germs on them
- ▶ Do not use bleach products. Do not use homemade solutions containing more than 50% rubbing alcohol on touch screens

Products to Use

- ▶ Alcohol Based Products- Wipes or Sprays
 - Remember to spray a cloth and not spray directly at the electronic device, unplug devices before cleaning/sanitizing
 - Use 70% Alcohol products to clean keyboards and electronic devices
- ▶ Far-Ultra Violet C Light is effective at killing germs and bacteria
 - This is UVC light between the wavelengths of 207 and 222 nanometers.
 - Far-UVC light is still damaging to germs but is less of a hazard to your skin and eyes than other types of UVC light

Medical and Household Items

▶ General

- If Someone is suspected of having COVID-19 in your home clean and disinfect hard surfaces more often.
- Remember to follow instructions on how long the item must remain wet for the disinfectant to work.

▶ Nebulizers

- Clean daily with warm water and soap, let air dry, weekly disinfect.

▶ Laundry Basket

- If someone has been exposed to the virus, clean with Clorox/Lysol based product.

▶ Clothes/Coats/Hats/Scarfs

- If someone sneezed or coughed on them, worn in a crowd of people, or been near someone with the virus. Washing and Drying clothes is effective at killing the virus. The Coronavirus is killed at 133 degrees Fahrenheit.

▶ Face Mask

- Wash frequently. Have multiple masks available to wear. If not machine washable, soak in warm soapy water for at least an hour. Do not use bleach or other products irritating to the skin.

Household Items

▶ **Backpacks/Purses**

- As frequent as whenever the item comes into the house, designate one location in house/office to store backpack or purse and periodically clean that spot.

▶ **Shoes**

- Can track other germs into house besides COVID-19. Leave near the door, Clean soles with Clorox/Lysol based product, if able wash in washing machine and machine dry.

▶ **Furniture**

- Soft fabric, do not use for 5-7 days; cleaning and disinfecting may damage fabric.
- Hard woods/metals can be cleaned and sanitized, if not, do not used for 5-7 days.

▶ **Carpets/Rugs**

- ▶ Use typical products, sanitize with a fabric-friendly disinfectant.

▶ **Door knobs/handles, light switches and other touch points**

- Use soap and water or Clorox/Lysol sprays/wipes, do not spray products using electricity.

Other

▶ Toys

- After play dates wash with soap and warm water and do not use for 2-7 days.

▶ Sport Equipment

- Use an approved cleaner and disinfectant. If not able to clean, do not use for 5-7 days. Minimize sharing of equipment.

▶ Mail and Mailboxes

- Wash hands after handling mail and packages.

▶ Vehicles

- Wipe down steering wheel, wiper, radio, AC/Heat, window and other controls, door handles and any other items you or someone else touched using manufacture approved products.

▶ Pets

- Be mindful your pets (dogs, cats, horses, other animals) can catch coronaviruses. Wash dog leashes periodically. Sanitize food and water containers periodically.

Other



▶ Gas Pump Handles

- No studies found on germ level, but likely highly contaminated. Wear gloves, use hand sanitizer afterwards

▶ Merchandise and Products in Stores

- Wear a face mask. Wipe down grocery cart/basket handles and scanners.
- Minimize touching of items. Choose no “touch backs”

▶ Workers Coming to your Home

- Repair and Maintenance
- Contractors
- Cleaners
- Must wear face mask.
- Minimize what the workers touch and how much time they spend inside the home. Interactions over 15 minutes increase risk of virus transference.



THE THREE MOST IMPORTANT COVID-19 SAFE PRACTICES

Even if you clean and sanitize,
if you don't do these three safe practices
(listed below) you could get sick

1. **Wear a mask (respiratory droplets is the primary exposure route)**
2. **Do NOT touch your eyes, nose, mouth**
3. **Wash your hands with soap and water for at least 20 seconds frequently**



Infectious Diseases Can Move Quickly

“Keep Calm and Carry On” Dr. Marguerite Neill, Brown University

Stay Informed: Consult the Center for Disease Control (CDC), World Health Organization (WHO), The US State Department Travel Advisories; John Hopkins Center for Health Security



Questions??