

COVID-19 – Cleaning vs. Disinfecting

It is important to note that cleaning a surface, such as removing dirt and particles, is not the same thing as disinfecting a surface that kills viruses and bacteria.

Often, you will need to clean a surface with soap and water or another cleaning solution **BEFORE** you can effectively disinfect the surface.

For example, if you bake cookies and your kitchen counter is covered in flour, sugar, egg, and other ingredients from your baking adventure, you will want to wipe down the surface with a soapy solution to remove the visible dirt. Then you can use a bleach solution on the non-porous countertop to disinfect the countertop from any lingering germs left behind.

The same goes for any surface that may have been in contact with someone who was ill. You will want to clean away any dirt on the surface then use a U.S. Centers for Disease Control and Prevention (CDC) recommended disinfectant to decontaminate the area.

What's a disinfectant product?

There are many products that are available to superficially clean hard surfaces, such as warm, soapy water, vinegar water solution sprays, or even essential oil solution sprays. However, those products have NOT been scientifically proven to effectively disinfect a surface from contaminants such as the coronavirus, influenza, norovirus, etc.

It is essential to pay attention to the active ingredients in your cleaning products. Below are common active ingredients found in the CDC and EPA recommended disinfectant cleaning products that can kill many viruses and bacteria:

- Ethanol alcohol (60%-90%)*
- Hydrogen peroxide (3-5%)
- Isopropyl alcohol (60%-90%)
- Quaternary Ammonium
- Sodium hypochlorite(1000 ppm)

The above is NOT an inclusive list, but it can help guide you as you look for products. You can view the all-inclusive list on the [EPA's website](#). YSU is supplying several of these. Follow these guidelines for proper disinfection:

<https://ysu.edu/sites/default/files/users/tmstyranc/Cleaning%20Directives%20for%20Offices%2>

[OYSU.pdf](#)

*Note: alcohol for human consumption is not an effective disinfectant. The alcohol content must be at least 60-70%.

Do products expire, and how do I store them?

Many ingredients found in disinfectant cleaning products expire and degrade over time, especially if they are improperly stored.

Store all products at room temperature and avoid exposure to direct sunlight.

The date of mixing is on each bottle. Hydrogen peroxide lasts six months, as does chlorox solutions. IPA and alcohol will keep disinfection properties for at least one year. Old solutions can be returned to the cmc for a refill.

Also, when you use any disinfect ensure that there is proper ventilation. The nozzle on the spray bottle does not always need to be used. You can try pouring the solution on a paper towel and then wiping the surface. This will eliminate any airborne droplets and be safer for your lungs. Remember that while these chemicals will disinfect, you must use them properly. Try to avoid inhaling the chemicals too often and for too long.

A word of caution

Mixing cleaning product ingredients is dangerous and can produce hazardous reactions and/or toxic gases.

Cleaning product ingredients should never be mixed unless recommended by the manufacturer or the [CDC](#).

Below is a list of everyday cleaning products that when mixed, can cause dangerous reactions and/or toxic gases:

- Bleach and Vinegar
- Bleach and Ammonia
- Bleach and Toilet Bowl Cleaner
- Bleach and Rubbing Alcohol (isopropyl alcohol)
- Hydrogen Peroxide and Vinegar

Again, this is NOT inclusive, so be sure to follow the manufacturer's or CDC's recommendations before combining any chemical cleaning ingredient or product.

The good news.

Properly disinfecting commonly touched objects helps prevent the spread of all contagious diseases, including COVID-19.

